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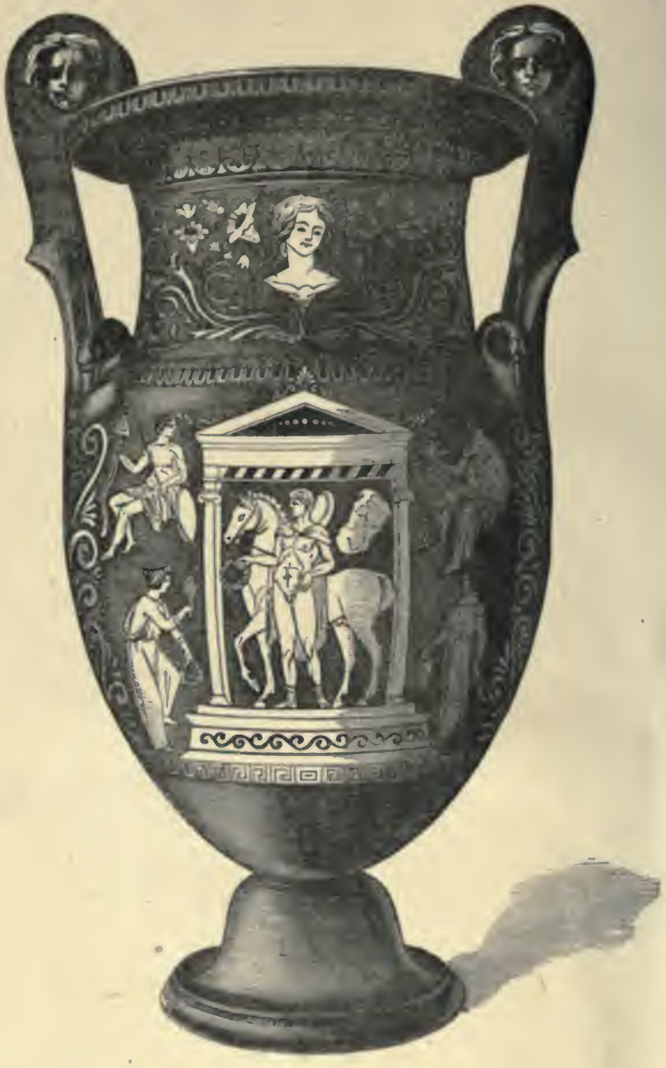

WEDGWOOD VASE.

[Mounted on Pedestal near Wall Case I.]

Copy of a large Greek Vase in the British Museum, executed by Josiah Wedgwood. The original was formerly in the collection of Sir W. Hamilton. It belongs to the latest period of vase-painting, known as the style of the Basilicata, and is supposed not to be earlier than B.C. 200. [No. G. 343, p. 135.]

Presented by the late Apsley Pellatt, Esq., M.P.

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CATALOGUE OF SPECIMENS

IN THE

MUSEUM OF PRACTICAL GEOLOGY,

ILLUSTRATIVE OF THE

COMPOSITION AND MANUFACTURE

OF

BRITISH POTTERY AND PORCELAIN,

FROM THE OCCUPATION OF BRITAIN BY THE ROMANS
TO THE PRESENT TIME.

BY

THE LATE SIR HENRY DE LA BECHE, C.B.,
DIRECTOR,

AND

TRENHAM REEKS,
CURATOR.

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26.2.40

THIRD EDITION

BY

TRENHAM REEKS, AND F. W. RUDLER,
CURATOR, ASSISTANT CURATOR.

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PREFACE TO THE FIRST EDITION, 1855.

When the sanction of the Treasury was given, in 1835, to the suggestion that advantage should be taken of the progress of the Geological Survey to form collections illustrative of the mineral wealth of the country, and of the application of its various mineral substances to the useful purposes of life, the Geological Survey was engaged upon Cornwall. Among the important substances there obtained were certain granite rocks known as *Cornish* or *China-stone*, and an artificial product named *Cornish* or *China-clay*, substances then largely employed in the composition and manufacture of porcelain and of certain earthenwares, and still more extensively used for these manufactures in the present day. The specimens obtained of these mineral substances for the Museum, then in Craig's Court, immediately led to collections of others illustrative of the earthenware and porcelain more or less manufactured with them.

As the progress of the Geological Survey continued, various other British mineral substances, which either had been in former times or were now employed for ceramic purposes, became known; and it was considered desirable to form a collection which should illustrate the composition and manufacture of British pottery and porcelain, from the occupation of Britain by the Romans to the present time. Although some portions of the collection in the Museum of Practical Geology may be defective, for the present it may be regarded as the best that has hitherto been formed; and there is every hope, especially from the continued donations of objects to it, which purchase could not obtain, that it may gradually be rendered still more effective for instruction.

In forming the collection it became needful to show, to a certain extent, the progress of enamelled colours from early times. Indeed, it would have been difficult to understand that part of the subject without such specimens. Hence those showing the enamel colours found at Nineveh and Babylon, the examination of which enabled Dr. Percy, metallurgist to the Museum, to point out that certain metallic oxides and their combinations were systematically used in enamel colours many centuries before the periods usually assigned. In like manner certain Greek vases became valuable, as also specimens from Italy, commonly known as Majolica, and from other countries, in obtaining knowledge applicable to a proper consideration of the advance made in the composition and manufacture of British pottery and porcelain. Such additions, however, are limited, and have their general bearing pointed out in the catalogue.

PREFACE TO SECOND EDITION, 1871.

The first edition of this catalogue was issued in 1855, and having been rapidly sold out has become both scarce and dear. Since that time not only have many new facts come to light, especially as regards the important manufactory of porcelain at Stratford-le-Bow, but the Museum collection has been very largely increased and re-arranged, and it is believed that no such collection illustrative of the manufacture of pottery and porcelain in Great Britain has elsewhere been brought together and exhibited freely to the public.

A very important addition to the collection has been contributed by Mr. George Maw, of Benthall Hall, which has been rendered all the more valuable by the catalogue and description contained in an appendix written by himself, a practical potter.

It is hoped that this second edition, almost wholly prepared by the Assistant-Curator, Mr. Rudler, may prove as useful to manufacturers and collectors as the first is said to have been.

Jermyn Street,
February 1871.

PREFACE TO THIRD EDITION, 1876.

A NEW edition of this Catalogue has long been called for, the second having been for some time past out of print. Owing to the various other duties of Mr. Rudler, by whom this edition has been entirely prepared, the publication of it has been somewhat delayed.

The interest taken by the public in this part of the Museum is manifested by the rapid sale of the last edition, which, with a view of keeping the price as low as possible, consisted of a very large number of copies.

Additional value has been imparted to this Collection in consequence of the irreparable loss by fire, at the Alexandra Palace, in 1873, of probably the largest and most valuable collection of British Pottery and Porcelain ever brought together.

We are indebted to the kindness of Mr. Hugh Owen, author of "Two Centuries of Ceramic Art in Bristol," for the notes on Bristol Pottery and Porcelain, and also for those on the Brislington lustre ware.

Jermyn Street,
February 1876.

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CERAMIC SERIES.

INTRODUCTION.

General Remarks on Ceramic Art.—It has been well remarked that there is no branch of industry viewed in reference to its history, its theory, and its practice, which offers more that is interesting, with regard alike to its economic application and to its scientific aspect, than the ceramic or plastic art; none affording products more simple and varied, more easy of manufacture, and, notwithstanding their fragility, more durable.*

It would appear in vain to search for any centre whence this art, like many other branches of human industry, may have radiated among the early nations of mankind. At the same time certain peculiar methods of working the materials employed in the art can readily be traced to their respective sources; and it may be often seen that a nation, spreading by conquest or by colonization, has carried with it certain peculiarities of the ceramic art.

The desiccation of clays after rain in countries where evaporation is rapid could not fail to attract attention to the soft and plastic state of such clays at one time, and to their comparative hardness at another.

We should therefore expect that sun-dried portions of clay would be early used for building purposes in regions generally dry, especially where building stones were scarce or even altogether absent. The further hardening of clays by fire could hardly fail to be observed at an early date, since any form of moulded clay, subjected to the action of strong heat, would readily show the induration which could be thus produced. The hardened state of such clays would readily suggest the extension of their use to the manufacture of domestic vessels, especially for such as might be advantageously employed over fires. No doubt, in regions where the vegetation afforded gourds and similar fruits fit for use as domestic vessels, the desire to obtain those of baked clay, except for use over fire, might be checked; while elsewhere the horns and skins of animals might be often found to serve sufficiently well for the like purposes. Nevertheless, the obvious convenience of baked clays for vessels required to withstand the effects of fire, and the desire for obtaining those of larger size than could be obtained from horns and gourds, would eventually produce an extended demand for the potter's ware.

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* Alexandre Brongniart. "Traité des Arts Céramiques; ou des Poteries considérées dans leur Histoire, leur Pratique, et leur Théorie." Paris, 1844. (Preface, tome I.)

Early History of Pottery. — Whatever may have been the origin of the manufacture of pottery, and however the art may have been spread, it was certainly known and practised in times beyond the reach of historical records. There is abundant evidence afforded by monuments of the so-called "Stone Age" to show that the art was cultivated among the people of Western Europe when at so low a stage of civilization as apparently to be ignorant of the use of metals, excepting perhaps gold. Many of the pile buildings in the Swiss lakes, which may be referred to the later stone period,—a period characterized by the use of polished stone implements, and the absence of both bronze and iron,—have yielded among their relics numerous remains of earthenware vessels, spindle-whorls, and other objects. As might be expected, these early specimens indicate the rude state of the art. The paste is coarse, and generally contains embedded grains of quartz, while the objects have evidently been made by hand, without the aid of the potter's wheel, and appear to have been very imperfectly hardened by fire. The ornamentation of such ware is almost confined to simple incised lines, produced sometimes by mere scratching with the finger nail, and sometimes by a thong twisted round the moist paste. Fragments of coarse hand-made pottery have also been found, associated with stone implements, in the Danish kitchen middens, or heaps of refuse-shells. But while only the rudest forms of ware have been brought to light from these sources, it is to be noted that early specimens of the potter's art, of a much finer description and more carefully worked, have been discovered in many tumuli or ancient burial mounds, which from their contents have been assigned by archæologists to the newer stone epoch or neolithic age.

In later times, when the use of bronze became general, considerable advance must have been made in the ceramic art, as testified by the remains found among the later Swiss lake dwellings. Not only has the clay in these cases been more carefully prepared, but the forms into which it is worked have become more varied, and the style of ornamentation more refined. None of the specimens, however, show signs of having been turned on the potter's wheel, and it is therefore believed that this mechanical contrivance, ancient as it undoubtedly is, was nevertheless unknown during those early phases of civilization represented by the so-called ages of stone and bronze.*

The high antiquity of the ceramic art is further attested by the constant discovery of remains of pottery among the ruined cities and tombs of ancient nations, with whose history we are more or less acquainted; and also by early records, such as those of the Scriptures, which not only afford frequent references to the art, but also show that it was formerly held in high esteem.†

Composition and Origin of Clays.‡—It may be said generally that the base of a clay consists of that portion of some of the minerals named *felspars* which remains after their partial decomposition by atmospheric and other influences. This portion is a combination of silica (or the matter of rock crystal) with alumina (or the matter of sapphire, ruby, and corundum), termed silicate of alumina. In all clays this compound exists in a hydrated form, that is, in chemical combination with water which cannot be expelled by mere exposure to the temperature of ordinary boiling water. The potash, soda, lime, or oxide of iron that may be present in the original felspar is removed to a great extent in the form of soluble carbonates or bicarbonates by the action of water holding carbonic acid gas (carbon dioxide) in solution. Most clays, however, contain, in addition to the hydrous silicate of alumina, a variable proportion of free silica and of other foreign substances in a state of mechanical association. These substances greatly affect the manner in which a clay behaves on exposure to heat. Thus, the presence of potash, lime, or oxide of iron confers upon it a greater or less degree of fusibility, while a larger proportion of silica renders it refractory.

Among the felspars which are important as constituent of rocks, the chief species are those known under the names of orthoclase, oligoclase, albite, labradorite, and anorthite.§ Although all fel-

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* For notices of prehistoric pottery, see Sir John Lubbock's "Prehistoric Times," 3rd Ed., 1872, pp. 16, 257, &c.

† In the genealogy of the tribe of Judah, a family of potters is mentioned as working for the king. 1 Chron. iv. 23.

‡ On this subject see also Mr. G. Maw's remarks in Appendix A., p. 273.

§ Although analyses show slight variations in the composition of these felspars, the following may be taken to fairly represent their general composition:—

	Silica.	Alumina.	Potash.	Soda.	Lime.	Magnesia.
Orthoclase[a] -	65·24	18·57	14·02	1·25	0·34	0·10
Albite[b] - -	68·75	18·79	1·21	10·90	0·51	0·09[f]
Oligoclase[c] -	63·94	23·71	2·17	7·66	2·52	—
Labradorite[d] -	53·89	27·66	1·28	4·92	8·28	—
Anorthite[e] -	45·14	32·11	0·22	1·06	18·32[g]	—

[a] From Baveno, analysed by Abich. [b] From the Riesengebirge, by Lohmeyer. [c] From Warmbrunn, Silesia, by Rammelsberg. [d] From Oberstein, by Delesse. [e] From Hecla, by S. Von Waltershausen. [f] With 0·54 of protoxide of iron. [g] With 0·77 of protoxides of nickel and cobalt, and 0·2 of water.

spars are liable to decomposition under certain conditions, and may thus yield clay-forming materials, it is observable that those species which are poorest in silica, and which contain much lime, are more readily decomposable than those which are richer in silica, and contain less lime, but more soda and potash. Thus it may be inferred that labradorite and anorthite are more subject to alteration than are the more highly silicated felspars, orthoclase, oligoclase, and albite. It is, however, the three latter which have yielded the base of all our ordinary clays, and of these again, orthoclase may perhaps be regarded as that species which has done so most abundantly. These felspars constitute a portion, often considerable, of large masses of such crystalline rocks as granite, porphyry, diorite, and the like,* as also of rocks derived from them by the agency of water, and afterwards distributed in beds and layers.

The more pure varieties of the finely-comminuted matter forming clays are those which have been derived from rocks in which decomposed felspars are associated with other minerals which have resisted decomposition. Thus, for example, certain granites in which the felspar alone is decomposed, and the product reduced to a fine state of division so as to be readily removed in mechanical suspension by water passing over them, afford a fine sediment from the remains of the felspars alone, the other minerals having a tendency from their coarser state to remain behind. In this manner large masses of the decomposed remains of felspars may be carried into cavities or depressions, and be often covered with the other materials of the original rock formed into a kind of fine gravel, and subsequently drifted over such masses. In this state the clay is usually white, and known as *kaolin,* from a similar name employed by the Chinese.†

When, however, the remains of the decomposed felspars are washed into localities where they become mingled with other earthy matters in a finely comminuted state, or when they have been derived from a rock which contains decomposing hornblende, the resulting material is no longer white, but is variously coloured. Even when we suppose the purer varieties to have been deposited in the first instance, and to have formed distinct beds, as, for example, the clays of Bovey Heathfield in Devonshire (see

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It is perhaps right to observe that although, according to the usual practice of mineralogists, the several felspars are here spoken of as so many separate species, it is nevertheless probable that only a few of them are specifically distinct. Thus, according to the views of Tschermak, the so-called species oligoclase and labradorite are merely isomorphous mixtures in different proportions of albite and anorthite.

* See collection of British rock specimens in Upper Gallery.

† See pp. 9 and 16.

No. A. 15),* which appear to have been washed, with other detrital matter, and even trees, from the granitic region of a part of Dartmoor in previous geological times, it is easy to see that these clays may be again removed by atmospheric influences, rivers, and other abrading agents, and thus be rendered impure by the admixture of a variety of substances brought into intimate association with them by these causes.

Poole clay, so termed from being shipped at Poole in Dorsetshire, which is chiefly raised in the neighbourhood of Wareham, and is extensively employed in the British potteries, is an example of a tolerably pure clay (that is, one containing a large proportion of silicate of alumina, with free silica, but without injurious ingredients,) which has been accumulated far from any decomposing crystalline rocks, such as granites, porphyries, and the like. It is known also in the potteries as "blue clay."

Its geological position is in that portion of the Tertiary or Cainozoic beds (those occurring above the Chalk) of Dorsetshire and Hampshire which corresponds with the Lower Bagshot sands of the London district. Its decomposed felspathic matter, affording the silicate of alumina, and a portion at least of the free silica, may readily have been derived from other beds, such as those of many sandstones, in which that matter may have been disseminated. Prior-existing clays may also have been broken up and re-deposited.†

It is not known when Poole clay was first worked. By an Order in Council of 1666, arising out of a dispute between Wareham and Poole, it is directed that no dues were to be paid on "tobacco-pipe clay."* In an Act of Parliament obtained by Poole in 1756, the clay is termed "tobacco-pipe clay." Hutchings, in his *History of Dorsetshire,* published in 1774, mentions this clay as the chief article sent from "the Key at Wareham," and in 1796 about 10,000 tons of it were exported annually.† In 1831 the export of the clay had extended to 34,290 tons, and in 1851 it reached 69,286 tons, according to the clearances at the Poole Custom House; of this amount about 53,268 tons were employed in the manufacture of the finer kinds of earthenware, chiefly in the Staffordshire potteries, and 16,018 tons for ordinary stoneware, tobacco-pipes, alum-making, &c. In 1874 the amount exported from Poole was 63,705 tons, while the total quantity of pottery and other clays produced in Dorsetshire during that year amounted to 79,205 tons, of the estimated value of 19,800*l.*‡

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* "This (supracretaceous or tertiary) clay, which is stated to have been first worked about the year 1730 (Lyson's *Magna Britannia*, Devonshire, p. ccxci.), is shipped at Teignmouth for the potteries, and would appear to have been formed naturally much in the same manner as is now done artificially in Cornwall and Devon, though on a larger scale; decomposed granite having been washed down from Dartmoor into a lake or estuary, so that while the grosser particles were first lodged at its higher end, nearest the granite, the fine sediment was accumulated at the lower part. Large quantities of this material have been and still continue to be raised from the neighbourhood of Teigngrace and Whiteway and other places at that side of Bovey Heathfield. The mode of raising it is extremely simple, and generally consists in removing the gravel head, and sinking a large rectangular pit, the sides of which are supported by wood. As the pit is sunk, the workmen who cut out the clay in cubical or prismatic lumps, weighing from about 30 to 35 lbs. each, fling the pieces by means of a pointed staff from stage to stage, according to the depth; after which it is carried to the clay cellars, and thence forwarded when properly dried." "Report on the Geology of Cornwall, Devon, and West Somerset," by Sir H. T. de la Beche, F.R.S., 8vo., 1839. According to the Rev. John Templer, about 20,000 tons of clay were raised in 1822. The production in 1874 amounted to 59,789 tons, ("Mineral Statistics" for 1874, by R. Hunt, F.R.S.)

† Many of the British clays, termed *pipe-clays* from being used in the manufacture of tobacco-pipes, would appear to have been derived from the disintegration of stratified rocks, or those deposited by water. Mr. Maw has suggested that some of the finer white clays of the Lower Tertiaries may have been derived from the Chalk. (*See p.* 274.)

Composition of the body or paste.—The chief substance entering into the composition of the *body* or *paste* § of all pottery and porcelain is silicate of alumina, generally associated with certain alkaline and earthy silicates, and with more or less free silica. In the paste after firing, the amount of silica varies from 55 to 75 per cent., and the alumina from 35 to 25 per cent. Magnesia is introduced into certain pastes, chiefly in the form of the mineral termed *steatite* or *soap-stone;* it may often, however, be found in small quantity in clays, particularly where the beds contain lime derived from districts in which magnesian limestones may be intermixed with the more ordinary kinds.

Artificially prepared clays.—While common natural clays would afford ready materials for ordinary pottery, and all within reach would probably be employed in different districts, it could scarcely happen but that observation would lead to the use of some in preference to others.

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* For this and the following information respecting "Poole clay" we are indebted to Mr. William Joseph Pike, the chief exporter of that clay.

† The following is an extract from Hutchings' *History of Dorset* (edition of 1796). "Good tobacco-pipe clay is dug round this town (Wareham) at Arne Hill, Heneger Hill, Norden, &c. It formerly sold at 50*s.* a ton, but now at 14*s.* or 15*s.* Nearly 10,000 tons are annually exported to London, Hull, Liverpool, Glasgow, &c., but the most considerable part to Liverpool for the supply of the Staffordshire potteries, and to Selby for the use of the Leeds potteries. The principal pits are on Norden and Witch farms, the former belonging to William Moreton Pitt, and the latter to John Calcraft, Esq., and the clay taken from the same is in great repute with the Staffordshire and Yorkshire potteries from its peculiar excellence, and being the principal ingredient in the ware commonly called Staffordshire ware, so universally in use in this kingdom as well as in many other parts of Europe."

‡ "Mineral Statistics," by R. Hunt, F.R.S., 1874, p. 175.

§ The prepared clay is commonly termed the *body* in this country; by the French authors and manufacturers it is known as the *pâte* or *paste.*

The artificial preparation of selected clays for pottery otherwise than by well washing and mixing them, does not, however, appear to have been practised in Europe until long after it was familiar to the Chinese, and indeed seems to have been adopted in European countries only in the early part of the eighteenth century, in order to produce a paste or body in imitation of that of Chinese porcelain.

Bodies or pastes of ancient pottery.—Judging from the analyses which have been made of the ancient pottery of Asia Minor, Egypt, Greece, Italy, and other advanced nations of antiquity, the pastes or bodies employed by them appear to have been little else than natural clays, selected for their fitness to the purposes for which they were intended. It has, indeed, been inferred that for the red ware some form of peroxide of iron was introduced into the paste, and certainly in some of the bodies this oxide is found in somewhat considerable quantity; but it should be recollected that certain clays naturally contain a large proportion of this substance. In the paste of the celebrated Greek pottery of the Campania there is often much peroxide of iron, while the remainder of the paste has quite a normal character The mean of eight analyses of this pottery (differing but little from one another) by M. Salvétat at Sèvres, was as follows:

Silica - - - - -	55·88
Alumina - - - - -	18·88
Peroxide of iron - - - -	15·80
Lime - - - - -	7·48
Magnesia - - - - -	1·63
	99·67

Physical characters of ceramic pastes.—Confining our attention to natural clays, we may regard the bricks and pottery made from them as varying in texture from those which are simply dried in the sun to those which are highly fired or baked in kilns at a considerably elevated temperature. In the former case the brick or piece of pottery is merely a dry piece of clay, the particles cohering slightly together;* but in the latter case a partial chemical change has been effected, which however slight in some instances, is yet sufficient to produce firm cohesion between the particles, so that when the piece which they collectively form is struck, a bell-like sound is emitted.

It will be obvious that sun-dried bricks or pottery, being merely pieces of desiccated clays, hardened only by the loss of hygroscopic water, may be again reduced to the state of soft clay by the addition of the water lost by drying. This, however, is not the case with baked bricks or pottery, inasmuch as during the process of firing the chemical composition of the clay is altered, and the constitutional water is more or less completely expelled, thus leaving the silicates almost or even entirely anhydrous. As this water cannot be again introduced by the mere mechanical act of absorption, it follows that with well-baked bricks or pottery mixture of their powder with water does not produce a substance resembling the original clay from which the bricks or pottery were formed. The porosity of pottery may depend on the amount of firing, an incomplete baking tending to retain a portion of the clay in its natural state; or on the composition of the clay, together with the amount of heat employed.

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* The Egyptians of the present day continue to make sun-dried bricks much in the same manner as appears to have been the practice in the same land in ancient times, mixing straw or reed with their clay to assist in keeping the desiccated mass well together. The Israelites when in Egyptian bondage complained that they were compelled to make bricks without straw.

It is also necessary to study the shrinkage of clays consequent upon drying and firing, since in this respect different clays vary materially.* The "fat" clays, as they are termed, those which are very unctuous and plastic, from containing little gritty matter and much water, usually shrink very considerably, while those which are "dry" or "lean," that is, more harsh to the touch from usually containing disseminated grains of sand and less water in the same bulk, better keep to the size and shape artificially given to them. Thus a piece composed of the first kind will commonly get out of shape and crack, while one made of the latter may retain its general form.

The shrinkage arises mainly from two causes; first, from the loss of water, which in a highly plastic paste may cause contraction to the extent of upwards of 15 per cent.; and, secondly, if the body be formed of readily-fusible substances, a further diminution of bulk arises from the closer juxtaposition of the component particles by incipient fusion; and this amounts frequently to from 10 to 15 per cent. From these causes it becomes essential that in pottery all portions of the clay employed should be of the same kind or composition, as otherwise the shrinkage would be unequal, and the vessels in baking would be distorted and cracked from that cause alone. In the employment of natural clays, therefore, it becomes needful to thoroughly knead and bake them, a process well understood by the ancient nations, judging from their better kinds of pottery.

Although natural clays may frequently have been employed singly, it could scarcely happen but that occasional experience, and often, probably, original design, arising from known variations in their plastic or other characters, induced the potters to mingle certain of them together, especially in districts where both

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* See Mr. Maw's Appendix, p. 213.

"fat" and "dry" or "lean" kinds might be found near each other. In the operation of firing, the potters probably found such variations of fusibility in the clays employed as to lead them to mingle two or more together, so that a highly fusible paste would be modified by one found from experience to be more refractory.

Chinese porcelain.—Artificially prepared clays seem to have been first employed by the Chinese for their pottery or porcelain. The date at which the use of these prepared clays commenced in China appears uncertain. Indeed how far the clays may have been first used in their natural state, as found in the vicinity of decomposed granitic rocks, the natural process by which they were formed being afterwards artificially imitated, seems also uncertain. It might easily happen that the kaolin distributed in beds, or irregularly in hollows, first attracted attention; this kaolin being mingled with quartz in such proportions that if pounded the whole would constitute a material well fitted for the manufacture of porcelain. Be this as it may, it is certain that porcelain was manufactured in China at a very early date. According to the researches of M. Stanislas Julien,* the manufacture was commenced in the country of Sin-p'ing (province of Ho-nan) under the dynasty of Han, and therefore at some time between B.C. 185 and A.D. 87. As early as A.D. 600, porcelain was in common use, and in A.D. 1000 the art is considered to have attained its greatest perfection in China. Marco Polo, the Venetian traveller, saw the manufacture of porcelain as it was carried on at Kinsai, in the thirteenth century, and refers to the mining of at least a part of the materials employed, and to its being left exposed to atmospheric influences for many years, during which time it was never disturbed.

It is probable that the general composition of the artificially prepared clays employed by the Chinese for their porcelain has long remained the same, so that by an examination of those now employed we may obtain a fair knowledge of those formerly used. According to the Père d'Entrecolles, who resided in the early part of the last century, at King-te-chin, the site of the great porcelain manufactories, the chief ingredients are *kao-lin* † and *pe-tun-tse*. It is generally believed that kaolin is the decomposed felspar above mentioned, but the definition of pe-tun-tse is involved in more difficulty. *Pe-tun* signifies a *white* paste, and the suffix

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* "Histoire et Fabrication de la Porcelaine Chinoise; Ouvrage traduit du Chinois par M. Stanislas Julien," Paris, 1856. Translator's preface, p. xx.

† The term *kaolin* is said to be derived from *Kaouling* ("lofty ridge,") the name of a hill east of King-te-chin, whence some of the material is obtained. It is probable that some confusion has arisen in the application of the terms kaolin and pe-tun-tse, and that they are not used in Europe in the same sense as that in which they are employed in China.

tse is merely a diminutive applied to the material when made into the usual form of small cakes or bricks.* It appears indeed that several substances used in the manufacture of porcelain, prepared in the form of white tablets, pass under the common name of petun-tse; but by D'Entrecolles the name was restricted to the fusible ingredient of the paste, and therefore has generally been considered to denote a substance resembling our Cornish *china stone,* which is an aggregate of felspar, usually more or less decomposed, and quartz, commonly associated with a talcose mineral; in fact, a disintegrated granitic rock resembling the *pegmatite* of certain authors.

Some of the Chinese clays are prepared merely by washing, but those materials which are derived from hard rocks require to be reduced to powder and then mixed with water, when the finer particles are carried off in mechanical suspension and gradually deposited in tanks. Steatite or soap stone (*hua she,* "slippery stone,") is also used by the Chinese in their porcelain, but the articles manufactured are stated to be rare and more than usually expensive.

The following analyses by MM. Laurent and Malaguti show the chemical composition of certain of the Chinese porcelains, the constitution of Chinese, like that of other porcelain, necessarily varying according to the intentions of the manufacturers as to the market for their wares.

	Paste or body of a white vase ornamented with painting.	Paste or body of a greenish white plate with blue ornaments.
Silica - -	70·5	63·5
Alumina - -	20·7	28·5
Potash - -	6·0	5·0
Lime - -	0·5	0·6
Protoxide of iron -	0·8	0·8
Magnesia - -	0·1	trace
	98·6	98·4

Introduction of Chinese Porcelain into Europe.—Although vases and other pieces of Chinese porcelain found their way to Europe before the Portuguese had doubled the Cape of Good Hope in 1497, it was only after that event that this porcelain became well known to various European nations.† The Portuguese appear to have carried on a considerable trade in Chinese porcelain, as also did the Dutch, who succeeded them in a great part of their East Indian traffic. According to Mr. Marryat,‡ the earliest mention of China ware in England is in 1506. The English East India Company, formed in 1600, having at length obtained an establishment at the port of Gombron, opposite Ormus, in the Persian Gulf, imported Chinese porcelain directly from this port into England, and hence, according to some authorities, it became known as "Gombron ware." Mr. Chaffers, however, considers that the Gombron ware was a fine kind of Persian fayence.

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* Similar blocks of a yellow earth are termed *hwan-tun-tse,* and those of a red material *hong-tun-tse.*

† The Portuguese introduced Chinese porcelain into Europe about 1520.

‡ "A History of Pottery and Porcelain, mediæval and modern." 3rd ed., London, 1868, p. 247. Rapin states that "in the year 1506, Philip of Austria and Joan, who

First European Manufactory of Hard Porcelain at Meissen in Saxony.—The introduction of Chinese porcelain produced a strong desire to imitate it; but, although the ornamental designs were copied upon ordinary European wares, such as those of Delft, it is believed that no real advance was made towards the production of a similar paste until the discoveries of Böttcher in the eighteenth century.* Böttcher appears to have been an apothecary's assistant in Berlin, who fled into Saxony to avoid persecution on account of his supposed secret of making gold. It is related that when working in the laboratory of Tschirnhaus, an alchemist, at Dresden, some crucibles prepared by him assumed the character of Chinese porcelain. He at first worked at Dresden with a brown clay found near Meissen, and produced a red ware; † but it was not until 1709 that he made white porcelain. Though not of good quality, it was sufficiently successful to lead to the establishment of a manufactory at Meissen by Augustus II., Elector of Saxony and King of Poland, who had previously seen the importance of the subject, and had even confined Böttcher, though with every comfort, in the Albrechtsburg at Meissen, in order to prevent his escape and the consequent loss of the secret. In 1710, Böttcher was appointed director of the Meissen factory, and five years later he succeeded in making excellent porcelain. This manufactory has continued in existence to the present day, producing the fine porcelain known as Dresden china.

" had taken the title of King and Queen of Castile, left the Low Countries, and " embarked at Middleburgh for Spain. They set sail on the 10th of January, and " before they left the Channel their fleet was dispersed by a storm, and the ship on " board which they were ran into Weymouth. Sir Thomas Trenchard, the High " Sheriff, went to pay his respects to them, and they accepted his invitation to lodge " at his house at Wolveton." Hutchins, in his *History of Dorset*, states that " when " the King took his leave, he presented his host with some immense Delft-ware dishes, " and some bowls of *Oriental China*." Mr. Marryat says that " these are the " earliest pieces of Oriental porcelain known to us as having been brought to " England, with the exception of a curious basin or drinking-bowl of the pale sea-" green thick ware, called Archbishop Warham's (1504–1532)." Among the new year's gifts to Queen Elizabeth, 1587–8, Lord Treasurer Burghley offered one " porrynger " of " white porselyn " garnished with gold, and Mr. Robert Cecil, " a " cup of grene pursselyne."

* It is known, however, that a soft paste was manufactured at Florence as early as 1580.

† A double-handled cup and saucer, in Böttcher's red ware, will be found among the small collection of foreign specimens in the gallery on the western side. This piece may be assigned to about the year 1706.

Whatever were the clays with which Böttcher originally worked, it appears that he finally employed the kaolin of Aue, near Schneeberg, in the Erzgeberge. It is stated that he was led to its use by finding that some hair-powder furnished to him was heavier than the ordinary kind; and by experiment he then ascertained that this powder, substituted for the wheaten flour with which the true hair powder should have been composed, was the substance which he sought for the manufacture of his porcelain, being, in fact, dried and powdered kaolin.*

The greatest secrecy was adopted with respect to Böttcher's method of manufacture. The kaolin itself was sent in sealed barrels, by sworn persons, and its exportation was prohibited. The workmen were closely watched, and the establishment at the Albrechtsburg at Meissen was a complete fortress for the confinement of the parties employed. The injunction "Be secret until death" was written in the workshops. This secrecy continued even down to 1812, when on M. Brongniart's inspection of the works at the requisition of Napoleon I., it was found necessary to release M. Steinau, the director of the factory, from his oath, in order to explain the process adopted.

Origin of other Continental Porcelain Works.—Notwithstanding all the precautions taken, it happened in 1718, the year previous to Böttcher's death, that Stolzel, the chief workman at Meissen, escaped, and endeavoured to establish works at Vienna, with the aid and under the direction of a Belgian named Claude du Pasquier or Du Paquier. The latter obtained a licence for 25 years from the Emperor Charles VI., but was not able to raise the funds necessary for carrying on the works in a proper manner. These did not therefore advance until the manufactory was acquired for the State by the Empress Maria Theresa in 1744. A workman from the Vienna manufactory named Ringler, made, in 1740, good porcelain at the pottery at Höchst, a village on the Nidda, in the territory of Mayence.

The method of manufacturing the Meissen porcelain gradually spread. In 1750, porcelain manufacture was commenced at Berlin by a merchant named Wegely, who obtained the secret from the Höchst workmen. Gottskowski, a banker, succeeded in 1761, and advanced the works. Frederic II. bought them in 1763, and converted them into a Royal manufactory.

In 1758, a manufactory, which had been established at Neudeck, in Bavaria, in 1747, was transferred to Nymphenburg, near

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* The statement is that John Schnorr, an iron-master, riding near Aue, observed that a soft white earth adhered strongly to his horse's feet. Considering that this earth might be used as a substitute for wheat-flour as hair-powder, he carried some away with him, and it was subsequently sold in large quantities for this purpose at Dresden, Leipsic, and other places. This kaolin continued long to be known as *Schnorrische weisse Erde* (Schnorr's white earth).

Munich. The St. Petersburg manufactory, founded by the Baron Yvan Antinovitsh in 1744 was enlarged in 1765 by the Minister Olsonfieff.

The celebrated Sèvres works were first established at St. Cloud, where, from 1695, a ware with a coarse yellow paste had been manufactured From the account given by Dr. Martin Lister, who visited the St. Cloud works in 1698, it would appear that " there was no moulding or model of China ware which they had " not imitated; and they had added many fancies of their own, " which had their good effects, and appeared very beautiful." Réamur, who had obtained kaolin and pe-tun-tse from China, endeavoured to discover similar substances in France (1727 to 1729). Although he did not himself succeed in these researches, he nevertheless paved the way for the use of these substances at Sèvres when discovered. In 1745, a company was formed with privileges for 30 years, and the manufactory was established in the Château de Vincennes. These privileges were sold in 1753, and a third share having been taken by Louis XV., it obtained the title of a royal manufactory. In 1756, the works were removed to Sèvres, more space being required in consequence of their progress; and in 1760, Louis XV. became the sole proprietor. Though the "soft porcelain"* had been made, as in England, for several years, the "hard porcelain," such as had been for a long time manufactured at Meissen, was not made at Sèvres until after the discovery of kaolin in France. This was first effected near Alençon by Guettard, who gave an account of it to the *Académie des Sciences* in 1765. The kaolin, however, was found not sufficiently good for the purposes required, but a year afterwards kaolin was accidentally discovered at St. Yrieix, near Limoges, and having been ascertained to be both abundant and of good quality, the manufacture of hard porcelain was established at Sèvres in 1769.

Early English Porcelain Works at Fulham, Bow, and Chelsea— With regard to our own country, it appears that evidence may be adduced tending to show that the manufacture of porcelain was commenced here at an earlier date than has usually been assigned to its introduction. As far back as 1671, Mr. John Dwight established at Fulham a manufactory for the production of porcelain. That the substance which he produced was strictly entitled to be called "porcelain" seems to be placed beyond doubt, not only by his own descriptions in the patents which he obtained to secure his invention, but also by the testimony of contemporary writers. Thus Dr. Plot, in his *History of Oxfordshire*, published in 1677, mentions that Mr. Dwight "hath found ways to make an "earth white and transparent as porcellane, and not distinguish-"able from it by the eye or by experiments that have been "purposely made to try wherein they disagree." In support of Dwight's claims as the inventor of porcelain in this country, Mr. Chaffers has lately published* some extracts from certain memorandum books in the possession of Mr. C. J. C. Bailey, of Fulham, in which reference is made to some receipts, at present unpublished, for the manufacture of different kinds of "trans-"parent porcelane or china cley."

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* The terms "soft" and "hard" porcelain are often employed to distinguish the different kinds, but it may be doubted how far this is advisable, seeing that the different kinds pass so much from one into the other. "Hard" porcelain is more refractory than "soft," and is usually also less easily scratched. Not only as respects the body or paste, but also with regard to the glazes employed, the same distinctions prevail; the harder bodies being commonly covered with harder glazes.

The exact date of the early English porcelain manufactories at Bow and Chelsea is not definitely known, but it is generally supposed that the Bow works commenced about 1730.† From a patent‡ taken out in 1744 by Messrs. Heylyn and Frye, who were interested in the Bow manufacture, we learn that in their process a glass is formed with one part of either "pott ash, fern "ash, pearl ash, kelp, or any other vegetable lixiviall salt," and "one part of sands, flints, pebbles, or any other stones of the "vitrifying kind;" this frit being reduced to powder is mixed with variable proportions of *unaker*, from which sand and mica have been removed by washing. The "unaker" here mentioned was a china-clay which had then recently been brought from America, but its use does not appear to have been long continued, for in another patent taken out in 1749 by Frye alone, no mention is made of the use of unaker. With regard to the Chelsea works, Mr. Georley, who visited London in 1765, was informed "that "the county of Cornwall supplied them with the sort of earth fit "to make porcelain." § The sand used to render the clays perfectly "dry" is said to have been obtained from Alum Bay in the Isle of Wight, a sand which has been extensively employed in the manufacture of glass.‖ It is certain also that at the Chelsea works pounded glass was at first mixed with the clay and sand in order to imitate the transparency of the Chinese porcelain.

There is likewise some uncertainty as to the kinds of clay employed in some of the other earlier porcelain works of this country. The natural kaolin of Bovey Tracey in Devonshire is stated to have been worked in 1730, and the clay of Wareham in Dorset, and other adjacent places, was exported, as before mentioned, at least as early as 1666.

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* "Marks and Monograms on Pottery and Porcelain," 3rd ed., 1870, p. 661.

† Mr. Marryat points out that Dr. Martin Lister in 1698 alludes to a manufacture of porcelain (if such it could be termed, being little better than a kind of opaque glass), at Chelsea.

‡ Specifications of Patents, No. 610, Dec. 6, 1744.

§ "Tour to London," Lond., 1772, vol. ii. p. 76.

‖ This sand forms part of the tertiary or cainozoic series of rocks occurring on the northern side of the Isle of Wight. It is worked and carried away in large quantities from Headon Hill, Alum Bay, for glass manufactories.

Cookworthy's discovery of kaolin.—The great advance of the porcelain manufacture in England is due to the discovery of the kaolin of Cornwall by William Cookworthy of Plymouth about 1755. Borlase in his *Natural History of Cornwall* (1758) makes no mention of any Cornish clays employed in pottery; he merely notices that of Amalebria in Towednack, as likely from some experiments he had made, to be useful for porcelain, stating that there were other white clays at Tregonning Hill near Breage. He also notices other clays as fitted for the purpose, and mentions that W. Cookworthy had made experiments on the Breage China-stone, and that it had been found useful in the manufacture of porcelain. Cookworthy apparently had his attention directed to the subject by an American, who showed him samples of China-stone and kaolin from Virginia in 1745.* He afterwards found these substances in Cornwall, and eventually worked both, in conjunction with Lord Camelford, on property of the latter in the parish of St. Stephen's. Pryce in his *Mineralogia Cornubiensis,* published in 1778, states that artificial kaolin (China clay) was then prepared in the parishes of Breage and St. Stephen's by repeated washings with clear water, and afterwards packed in casks and sent off,† and that Mr. Cookworthy, by his late improvements at his porcelain manufactory then established at Bristol (having been removed thither from Plymouth), was likely to produce ware which should rival the best Asiatic China. In 1768, Cookworthy took out his celebrated patent for using Cornish clay (kaolin) and moorstone (China-stone) in the manufacture of porcelain; shortly afterwards he joined Richard Champion of Bristol, and in 1773 the patent right passed into Champion's name.‡

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* Prideaux's "Relics of William Cookworthy," 1853, p. 12.

† "Mineralogia Cornubiensis," p. 32.

‡ See Mr. Hugh Owen's "Two Centuries of Ceramic Art in Bristol," 1873; and notices of the Plymouth and Bristol Works, pp. 196 and 200.

RAW MATERIALS

Employed in the Manufacture of Pottery and Porcelain.

[See specimens in lower compartment of Pedestal Case No. 53; east side.]

Kaolin and other clays.—Kaolin, or China clay, is now chiefly prepared in Cornwall from the granite in the neighbourhood of St. Austell and St. Stephens, from the north side of Tregoning Hill, near Breage, at Towednack, near St. Ives, and at St. Day, near Redruth; while in Devon it is worked at Lee Moor and at Meavy on the south side of Dartmoor. Although the method of preparing kaolin is sufficiently simple, much care is at the same time required to obtain the substance in as pure a condition as possible. The presence of iron has particularly to be avoided, as many of its compounds would tend to colour the paste of the porcelain or the earthenware into the composition of which they might enter.

In preparing kaolin those localities are selected where water can be readily procured, and where the rock is in a very friable state owing to the decomposition of its felspar. The exact natural conditions under which this disintegration has been brought about are not well understood. The less of foreign minerals the rock may contain, and the harder, the heavier, and the less decomposed these may be, the better. The disintegrated rock, usually containing much quartz, is generally exposed on an inclined plane to a fall of a few feet of water, which washes it down to a trench, whence it is conducted to catch-pits. The quartz, and the schorl, mica, or other minerals which may be present, are in great measure retained in the first catch-pit; but there is usually a second or even third pit in which the coarser portions are collected before the water charged with the finer particles of the decomposed felspar in a state of mechanical suspension is allowed to come to rest in the tanks or ponds prepared for the purpose. In these the kaolin is permitted to subside, the supernatant liquid flowing off in another direction; and by a repetition of this process the tanks become nearly filled with kaolin in the state of a soft clay. Formerly this clay was dried by simple exposure to air at the ordinary temperature, but artificial heat is now usually employed. Thus at the Lee Moor Works the semi-fluid clay is removed to a series of clay-pans heated by hot-water pipes, and when sufficiently dry is cut into rectangular blocks, which are then transferred to a building artificially heated, where they become properly dried for sale. When sufficiently dry, the outsides of the lumps are carefully scraped, and the pieces of kaolin sent to the potteries.

The kaolin of Cornwall and Devon varies much in quality, according to the character of the substances worked and the care employed in their preparation. In 1874 the quantity of kaolin produced in Cornwall was 150,500 tons, and in Devon 33,309 tons.*

A. 1. SILICA (silicic anhydride), in the form of rock crystal, representing one of the proximate constituents of clay.

A. 2. ·ALUMINA, in the impure form of emery, representing another constituent of clay.

It is right to note that in emery the alumina is associated with much ferric oxide, (peroxide of iron), sometimes even to the extent of half its weight. Lime and silica are also usually present. Purer forms of native alumina are furnished by the minerals corundum, ruby, and sapphire, specimens of which will be found in the central horse-shoe case. Aluminic silicate (silicate of alumina), associated with alkaline and alkaline-earthy silicates, enters into the composition of all the minerals which are grouped together under the general name of *felspar*, and which by their partial decomposition yield clay-forming materials.

A. 3. ORTHOCLASE, or Potash Felspar; essentially a double silicate of alumina and potash (potassic-aluminic silicate), but usually containing small quantities of soda, lime, peroxide of iron, and other bases. (*See* analysis on p. 3.)

Orthoclase is the most common species of felspar, and enters largely into the composition of granite and many other crystalline rocks. It is to the alteration of the felspathic components of certain rock-masses that the purer forms of clay generally owe their origin. (*See* pp. 3 and 274.)

A. 4. GRANITIC ROCK, with its felspar partially decomposed, from which the kaolin is prepared at Gunbarrow, St. Austell, Cornwall.

A. 5. KAOLIN,† or Cornish china-clay, from Gunbarrow, St. Austell, Cornwall.

A. 6. KAOLIN, from Bluebarrow, St. Austell, Cornwall.

The following analyses of Bluebarrow and St. Stephens kaolins were made by Dr. Lyon Playfair at the laboratory of this Museum, in 1852:—

Clays dried at the temperature of 212° Fahrenheit.

	Bluebarrow.	St. Stephens.
Silica - - -	45·52	46·38
Alumina, with peroxide of iron - - -	40·76	38·60
Lime - - -	2·17	3·47
Potash, with trace of soda	1·90	1·77
Magnesia, phosphoric acid, and sulphuric acid -	traces	traces
Water, with a small quantity of organic matter -	9·61	9·08
	99·96	99·30

A. 7. KAOLIN, from St. Stephens, Cornwall.

A. 8. KAOLIN, from Carnbean, St. Austell, Cornwall.

A. 9. KAOLIN, from Stents, St. Austell, Cornwall.

A. 10. KAOLIN, from Huel Prosper, Roche, Cornwall.

A. 11. KAOLIN, from Park-an-Dillac, St. Dennis, Cornwall.

Nos. A. 4 *to* A. 11 *presented by J. Arthur Phillips, Esq.*

A. 12. DECOMPOSED GRANITIC ROCK, from which the kaolin is prepared at the Morley or Lee Moor clay works, near Slaugh, Devon.

A. 13. KAOLIN (quality B. B.), from the Morley or Lee Moor clay works, Devon.

A. 14. KAOLIN (quality P.), from the Morley or Lee Moor clay works, Devon.

Nos. A. 12 *to* A. 14 *presented by Earl Morley.*

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* "Mineral Statistics" for 1874, by R. Hunt, F.R.S., p. 173.

† *Kaolinite* is the name proposed by Messrs. Johnson and Blake for a species including native kaolin and several allied minerals.

A. 15. Bovey Clay, or Teignmouth clay; a natural kaolin from Bovey Heathfield, Devonshire.

For a description of this clay, which is largely exported from Teignmouth for the use of the potters, see p. 5.

The following is an analysis of Teignmouth clay made in the laboratory of this Institution by Mr. W. Weston :—*

Silica	52·06
Alumina	29·38
Potash	2·29
Lime	0·43
Magnesia	0·02
Protoxide of iron	2·37
Water combined	10·27
Water hygroscopic	2·56
	99·38

A. 16. Poole Clay, or "Blue Clay," from the neighbourhood of Wareham, Dorsetshire.

For a description of this clay, which is largely exported from Poole to the potteries, see p. 5.

The following is an analysis of Poole clay made in the laboratory of this Institution by Mr. W. Weston :—†

Silica	48·99
Alumina	32·11
Potash	3·31
Lime	0·43
Magnesia	0·22
Protoxide of iron	2·34
Water combined	9·63
Water hygroscopic	2·33
	99·36

A. 17. Poole Clay. Quality used for tobacco-pipes.

A. 18. Poole Clay. Quality used for fine earthenware.

A. 19. Poole Clay. Quality used for stoneware.

A. 20. Poole Clay. Quality used for the manufacture of alum.

Nos. A. 17 *to* A. 20 *presented by Messrs. W. and J. Pike, of Wareham.*

A. 21. Stourbridge Clay, a highly refractory "fire-clay," from the coal-measures of Stourbridge, Worcestershire; used for fire-bricks, crucibles, saggers, &c.

The following analysis of Stourbridge clay was made by Mr. C. Tookey in the Metallurgical Laboratory of this Institution, under the direction of Dr. Percy :—‡

Silica	65·10
Alumina	22·22
Potash	0·18
Lime	0·14
Magnesia	0·18
Protoxide of iron	1·92
Phosphoric acid	0·06
Water combined	7·10
Water hygroscopic	2·18
Organic matter	0·58
	99·66

An extensive collection of the clays and other plastic strata of Great Britain, collected and presented by George Maw, Esq., F.G.S., F.S.A., &c., is arranged in the lower compartments of the pedestal cases Nos. 4, 5, 52, 53, and 55. A special catalogue of this collection, prepared by Mr. Maw, is published in Appendix A. (*See* p. 273.)

China stone.

The china-stone of Cornwall, which is largely exported to the potteries, is a disintegrated rock consisting usually of a mixture of quartz, partially decomposed felspar, and scales of a greenish-yellow talcose mineral. The extent to which the felspathic constituent has suffered alteration varies materially in different varieties of china-stone, but the felspar always retains more or less of its alkaline silicate, which thus renders the rock fusible. It is generally assumed that china-stone represents the disintegrated granitic rock which, in a more advanced state of decomposition, furnishes kaolin; but the relation between the china-stone and china-clay is still somewhat obscure. The china-stone is quarried chiefly from the granite of St. Stephens, in Cornwall, which furnishes also some of the best kaolin. In quarrying the stone, those parts should be avoided in which it becomes intermixed with schorl, or black tourmaline, a mineral somewhat common in the granite of which the china-stone forms a portion. The stone requires no preparation before being sent to the potteries, but when quarried is merely broken into pieces of a size convenient for carriage. In 1874 the produce of china-stone in Cornwall was 42,500 tons.*

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* Dr. Percy's "Metallurgy," vol. i., 1875, p. 99, where will be found a large number of analyses of clays.

† *Op. cit. p.* 99.

‡ *Op. cit. p.* 98.

A. 22. CHINA-STONE, from St. Stephens, Cornwall; composed of quartz, slightly decomposed felspar, and a talcose mineral.

A. 23. CHINA-STONE, from St. Stephens, Cornwall, the felspar being in a more advanced state of decomposition.

A. 24. CHINA-STONE, from Restourack, St. Dennis, Cornwall.

A. 25. CHINA-STONE, from Tregonning Hill, near Breage, Cornwall.

Nos. A. 22 to A. 25 presented by J. Arthur Phillips, Esq.

Flints.

Although natural clays are extensively employed in the manufacture of British pottery, such, for example, as the Bovey and Poole clays previously mentioned, yet they are usually mixed, to a greater or less extent, with the artificially-prepared kaolin of Cornwall and Devon, the proportions varying according to the kind of earthenware or porcelain required. Grains of silica are always mechanically mingled with the clays, and these are now commonly derived from finely-pounded flints. The flints † are obtained from the chalk districts from which there is the cheapest carriage. Those which are black are usually preferred. They are first calcined or burnt in a kiln to render them easily broken, and they are then stamped or crushed, and being afterwards mixed with water are reduced to the consistency of cream by grinding in circular pans, the bottoms of which are commonly paved with some hard stone, generally chert, over which heavy stones of the like kind are driven round by machinery, and the flints are thus ground in water between them. When taken out of these pans the creamy-looking mixture is placed in a reservoir, often termed an *ark*, where the pounded flint settles and the water is drawn off.

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* Mineral Statistics for 1874, by R. Hunt, F.R.S., p. 173.

† The introduction of flints into the manufacture of pottery is attributed to Mr. Astbury, a Staffordshire potter of great enterprise, who, in 1720, riding to London on business, as was then a common practice, found his horse's eyes disordered before he reached Dunstable. On arriving at the inn in that town he consulted the ostler, who placed a small flint in the fire, heated it to redness, and, after throwing it into water, pulverized it. He then blew a little of the powder into the horse's eyes. The attention of Mr. Astbury was arrested by the process of reducing the flint to powder, and observing the white character of the latter, he had some flints sent to Shelton, "where," according to Dr. Shaw (*Chemistry of Porcelain, Glass, and Pottery*, 1837, p. 248), "on his return home he had them "fired after the ware was baked; then pulverized in a large mortar, and in the state of "powder mixed with pipe-clay in water, with which he *washed* the inside of his hollow "ware. Ultimately it was introduced into the body."

A. 26. Flints, from the chalk.

A. 27. Flints, calcined in a kiln.

A. 28. Flints, stamped and crushed.

A. 29. Flints, after having been ground in the mill.

Nos. A. 26 *to* A. 29 *presented by Lewis Dillwyn, Esq., M.P.*

A. 30. Chert, from the Carboniferous Limestone, Gronant, Talacre, Flintshire; used for paving the flint-grinding mills in the Staffordshire potteries.

Presented by Sir Pyers Mostyn, Bart.

Manufacture of Earthenware and Porcelain.

[See specimens in lower compartment of Pedestal Case No. 53; east side.]

Manufacture of Earthenware.

With respect to the manufacture of common earthenware, one which is carried on in England on a vast scale, not only for home consumption but also for exportation,* the following sketch of the processes usually employed may be useful to the visitor.

The *common body* is generally composed of Dorset or Poole clay, Cornish or Devon kaolin, and flint.

The *best body* is formed of Dorset or Poole clay, Cornish or Devon kaolin, Cornish china-stone, and flint.

The Dorset or Poole clay, which may be regarded as the base or chief ingredient in the manufacture of English earthenware, is mixed with water, and reduced to a state in which it can be passed through sieves of various sizes, in order to free it from lumps, and to render it of a fine uniform consistency. The kaolin requires no preparatory cleaning, and the flints are used as they come, finely comminuted from their deposit in water after passing the grinding mills. The china-stone requires to be crushed and reduced to a fine powder in mills, its treatment being indeed similar to that of the flints, with the exception of its not requiring calcination or burning in kilns.

All the materials being thus ready for use, the proportions of each considered requisite for the kind of ware about to be made are mixed with water and with each other, and the mixture taken to the *slip kiln*, a long brick trough heated by means of flues from a furnace. Here it is kept simmering until it acquires somewhat the consistency of dough. In this state it is ready for use, and is placed, until required, in cold dark cellars. If coloured bodies or pastes are required, so as to give a general tint to the ware, certain metallic oxides, or coloured clays or marls, are added to the prepared mixture.

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* According to M. Arnoux (*Lectures on the Results of the Great Exhibition of* 1851, vol. ii.—" Lecture on Ceramic Manufactures "), the value of the export of English earthenware in 1851 was 1,062,000. The number of pieces exported, including those of British porcelain (the value of which was 60,000*l.*), was 84,000,000. M. Arnoux states that in 1852 there were 185 factories engaged in the manufacture of earthenware and porcelain; 52 scattered over the country at Leeds, Stockton, Sunderland, Glasgow, Swansea, &c., and 133 in North Staffordshire, where 60,000 persons were more or less occupied in this manufacture in the districts commonly known as the ' Potteries."

The body or paste of mixed materials being now prepared, it is either *thrown*, as it is termed, by means of the potter's wheel (see p. 25), that is, raised into circular forms of different kinds by means of the rotary motion of the wheel, and by the action of the fingers; or it is *moulded* into forms, in the latter case the paste being first rolled into flattened pieces, which can be easily squeezed into a mould, commonly of plaster of Paris. When thought desirable the "thrown" forms are finished by placing them on a lathe and turning them into more accurate shapes.

The various forms having been completed, the pieces are taken to be carefully dried in rooms prepared for the purpose, in order to deprive them as much as possible of moisture. Indeed the water is to be regarded only as a tool in the manufacture, a vehicle of plasticity to be laid aside when no longer required.

Having been thus sufficiently dried, the pieces of earthenware are placed in large flat-bottomed pans, oval or round, as may be considered desirable, with vertical sides of sufficient height; these cases are termed *saggers*, and are made of refractory materials, such as fire-clays, broken pieces of earthenware after the first firing, and also of broken saggers themselves, pounded up, and often mixed with a small portion of damaged Dorset, Devon, or Cornish clays. In these saggers the dried pieces are so placed as to allow as many as possible to be packed without injury to one another. The saggers are then arranged in a kiln, termed the "biscuit kiln," one above another, so that an upper covers a lower sagger. The kiln is then "*fired*," that is, the proper heat is communicated to it, and the fire is continued for about three days; for instance, a kiln fired on Monday evening will be ready to be "*drawn*," or the saggers and their contents removed on Friday morning. The ware is then in the condition of *biscuit*, being white and porous, and readily absorbing water.

This "biscuit" may now be painted with certain colours, which can be used *under the glaze*, that is, before it is covered with a preparation which in another "firing" forms a coating of glass, or it may receive transfers from engravings, thus producing *printed ware*. The colours which can be advantageously used "under the glaze" are few as compared with those employed above it.* In the latter case the paints used are enamel colours, that is, glasses of different kinds mixed with metallic oxides which give the required colour.† The printing is but the employment of the colours that can be advantageously used "under the glaze, mixed with oil, and worked as ordinary printing ink for engravings. Care is required in manipulating the paper from which the print is transferred to the "biscuit," and in dexterously removing the paper after its application, so that the impression be not injured. To drive off the oil used as a vehicle for the colours, the ware after "printing" is exposed to a low heat in a kiln termed the *hardening kiln*, after which it is ready to be glazed. The materials of the glaze, which may vary according to the practice at different potteries, are mixed with water, so as to form a substance of about the consistency of cream. Into this liquid the earthenware, either painted with colours which will not suffer by the heat of the kiln into which it is next placed, or printed with colours of the like kind, is dexterously dipped. Upon removal all traces of the colouring are lost under a thin general coating of the finely-comminuted materials of the glaze, the water being readily absorbed by the porous "biscuit ware." It is now placed in saggers and exposed for about a day in the *gloss kiln*, as it is termed, where it is subjected to a lower temperature than in the biscuit kiln, but at the same time a temperature sufficiently high to fuse the coating upon the ware, and so form a glass, which by its transparency discloses the painting or printing beneath, while by its imperviousness it prevents the access of liquids to the porous body. The earthenware is then ready for the market.

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* Cobalt blue, chrome green, &c., may be used under the glaze, as they are not altered by the heat of the *gloss* or *glazing kiln*. Red from peroxide of iron, cannot be thus applied, as the heat of the kiln converts the red into brown or black.

† These glasses are in general more readily fusible than is the kind of glaze employed, so that the latter is not injured by the firing, the enamel colour simply covering and sufficiently uniting with it. The glaze itself can be coloured with various metallic oxides. (*See* p. 54.)

B. 1. **Materials** for the paste of earthenware, mixed and ready for use.

B. 2. **Piece** of ware thrown on the potter's wheel.

B. 3. **Piece** of ware thrown and turned, ready for firing in the "biscuit kiln."

B. 4. **Piece** of ware, in the state of "biscuit," as taken after "firing" from the "biscuit kiln."

B. 4a. **Piece** of biscuit ware, with flowers painted in colours that may be used under the glaze.

B. 5. **Piece** of biscuit ware, printed in blue with Chinese pattern transferred from a copper-plate engraving.

B. 6. **Piece** of printed ware coated with a glaze after firing in the "gloss kiln," and now ready for the market.

B. 7. **Engravings** from Copper plates, on thin paper, to be transferred to biscuit ware.

Nos. B. 1 to B. 7 presented by Lewis Dillwyn, Esq., M.P.

"*Dip Ware.*"

While referring to the manufacture of earthenware mention should be made of a very ingenious method, apparently in use long before the present white earthenware was invented, commonly termed *dipt* or *dip ware*. This kind of earthenware is still made, although not to so great an extent as formerly, "printed" and "biscuit painted ware" being able to advantageously compete with it in lowness of price. In the manufacture of this ware, the body or paste after having been prepared as usual, and "thrown" on the wheel to the required form, is handed over to the "dip turner." This workman having received the "thrown" piece (a mug for instance) in its rough state, places it on a lathe, and takes off its inequalities, even giving it a pattern, if thought desirable, by engine turning. Having coloured clays (either natural or artificially prepared) of the consistency of cream in a vessel with a spout that can be varied in form, he blows into this vessel through another tube, and thus forces the creamy clay out of the first-mentioned spout upon the piece of clay turning slowly on his lathe. In this manner rings of coloured clay can be deposited on the revolving piece of ware, and by dexterously dropping portions of the creamy clays, patterns of different kinds and of different colours may be produced, great variety of design being thus obtainable. The arborescent or dendritic forms are also usually produced by the "dip turner," who after covering the turned piece of the original paste or body with an evenly-spread coating of his "dip" compound in its creamy condition, drops upon it, before it becomes dry, another kind of "dip" compound, having a greater density than the first, and thus, by holding the piece so that the heavier compound or colour can descend amid the moist first-spread "dip" he permits it to disseminate its particles in an arborescent form. The pieces thus prepared are then merely fired in the "biscuit" kiln, and glazed in the "gloss" kiln for the market.

B. 8. **Piece** of raw material, thrown, turned, and ribbed by coloured clays.

B. 9. **Piece** of ribbed ware after firing in the biscuit kiln.

B. 10. **Mug**, thrown and turned, with arborescent pattern in coloured clay, produced as described above.

B. 11. **Mug** with arborescent pattern, in state of biscuit, after firing in the biscuit kiln.

B. 12. **Mug** with arborescent pattern, glazed after firing in the gloss kiln, and now ready for market.

Nos. B. 8 to B. 12 presented by Lewis Dillwyn, Esq., M.P.

Manufacture of Porcelain.

The manufacture of porcelain bears a general resemblance to that of earthenware, the differences relating chiefly to the composition of the pastes or bodies and of the glazes, to the arrangement of kilns by which the more refractory materials are exposed to higher temperatures, and to muffles or kilns for firing the various enamel colours employed upon the different forms given to the porcelain.* According to the analyses of M. Laurent, the general composition of the Sèvres porcelain, from 1770 to 1836, was :—

Silica - - - - - -	58·0
Alumina - - - - - -	34·5
Lime - - - - - -	4·5
Potash - - - - - -	3·0
	100·0

The paste used for printing upon, in 1843, was nearly the same, containing :—

Silica - - - - - -	58·03
Alumina - - - - - -	33·94
Lime - - - - - -	4·58
Potash - - - - - -	2·97
	99·52

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* Excellent details as to the manufacture of the Sèvres porcelain will be found in Brongniart's "Traité des Arts Céramiques."

The substances usually employed to form the paste or body are kaolin,* china-stone, plastic clay from Abondant on the eastern edge of the Forêt-de-Dreux, the silicious sand (nearly pure silica) of Aumont, near Creill, and chalk from the Colline-de-Bougivall.

According to the analyses of M. Laurent, the composition of the Meissen (Dresden) porcelain of 1825 chiefly differed from that of Sèvres in containing scarcely any lime, but more potash, as will be seen by the following analysis:—†

Silica	57·7
Alumina	36·0
Potash	5·2
Lime	0·3
Protoxide of iron	0·8
" manganese	traces
	100·0

In the composition of the Berlin porcelain of 1808, the proportion of silica was greater, while the per-centage of potash was lower than in the Meissen, but higher than in the Sèvres porcelain. The following is an analysis of Berlin porcelain by M. Laurent:—‡

Silica	66·6
Alumina	28·0
Potash	3·4
Protoxide of iron	0·7
" manganese	0·6
Lime	0·3
	99·6

The chemical composition of the various kinds of English porcelain has

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* The kaolin used at Sèvres came from St. Yrieix-la-Perche, 26 kilometres to the south of Limoges.

† The materials employed for porcelain of ordinary domestic use were:—

Kaolin from Aue	18 parts
Kaolin from Sosa	18 "
Kaolin from Seilitz	36 "
Felspar (Pegmatite?)	26 "
Broken biscuit porcelain	2 "

The Aue kaolin is now exhausted.

For finer kinds employed for ornamental purposes:—

Kaolin from Seilitz	37
Quartz	37
Lime from Pirna	17·5
Broken biscuit porcelain	8·5

‡ The materials used in the manufacture of Berlin porcelain are as follow:—

For domestic use.	
Kaolin from Morl	76
Felspar	24

For ornamental purposes.	
Kaolin from Morl	25
Kaolin from Beidure	50
Felspar	15
Pure (silicious) sand	10

not hitherto received much attention. Two kinds of English soft porcelain have been analyzed by Mr. Couper with the following results :—[*]

	I.	II.
Silica	39·88	40·60
Alumina	21·48	24·15
Lime	10·06	14·22
Protoxide of iron Phospate of lime	26·44	15·32
Magnesia	—	0·43
Alkali and loss	2·14	5·28
	100·00	100·00

Professor Church's analysis of old British porcelain will be found on p. 204.

The ingredients employed in the manufacture of English porcelain are commonly Cornish or Devon kaolin, Cornish china-stone, and flint, with prepared bones.[†] According to Aikin, the following was the composition of the body or paste of a Staffordshire porcelain, about the year 1840 :—

Cornish kaolin	31·0
Cornish china-stone	26·0
Flint	2·5
Prepared bones	40·5
	100·0

M. Arnoux considers that the soft porcelain commonly manufactured in England is nothing but that which is otherwise termed "hard," modified by the presence of the phosphate of line (tricalcic phosphate) contained in the bones.[‡]

Potter's Wheel.

As the potter's wheel is and has been so important an aid in the manufacture of pottery and porcelain, a slight notice of its progress among mankind may be desirable. After much discussion on the subject it would appear probable that the potter's wheel, like so many other things connected with the ceramic art, was derived from China. M. Brongniart[§] infers that the potter's wheel, after leaving China, where it had been long known, passed into Egypt by Scythia and Bactria, and through Scythia or Egypt itself to the Arabs of the Arabian peninsula and of Africa. He also considers that the evidence tends to show that it was introduced through Scythia, and nearly at the same time into Greece and its colonies in Southern Italy, reaching Etruria at a later date, and that it spread over the whole of Southern Europe, Rome, and its colonies, Spain, &c., as these countries became civilized and acquainted with the arts of the East, stopping at the southern part of Germany, and only partially entering it, and that while penetrating into Gaul, it remained unknown among the ancient Scandinavian nations.

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[*] "Philosophical Magazine," vol. xxxi. (N. S.), 1847, p. 440.

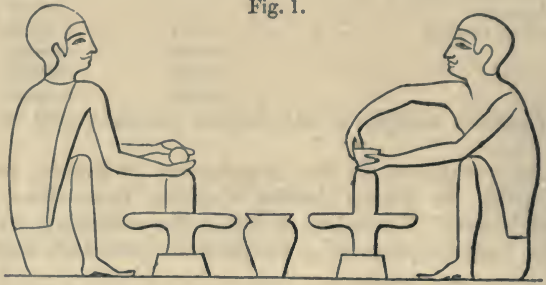
[†] In 1800 Spode introduced calcined bones into the body or paste of his porcelain at Stoke-upon-Trent. The bones now used are obtained chiefly from Ireland and America.

[‡] "Lecture on Ceramic Manufacture." As to the action of bones, M. Arnoux remarks that when the other materials "begin to combine at a certain heat, the bones being phosphate of lime, which cannot be decomposed by the silica, melt, without combining, into a sort of semi-transparent enamel, and being intimately mixed in the mass, give transparency in proportion to the quantity used."

[§] Brongniart "Traité des Arts Céramiques," 2nd ed., vol. i. p. 23.

Representations of the potter's wheel in the tombs at Thebes, as in the following figure (fig. 1), show that the ancient method of employing it in Egypt was much the same as that common in most countries at the present day.

Fig. 1.



Glazes.

[See specimens in Pedestal Case No. 5 ; west side.]

The porosity of ordinary pottery, however valuable in hot climates for the purpose of cooling liquids,* seems early to have suggested the use of a glazing or thin glass covering, for the purpose of rendering it impervious to fluids. In the present state of our knowledge it would appear difficult to fix a probable date for this invention, or even to attribute it to any locality. As regards the potter's art, so little is known of the early intercourse of the Chinese with the nations adjoining them, and of these again with the more western nations of antiquity, that even supposing the view taken of the progress of the potter's wheel to be approximately correct, and that early Chinese pottery was glazed, so that a knowledge of a process by which a glaze was formed would travel with the wheel, we still remain in doubt as to how far the first glazing of pottery can be traced to that people. The early Chinese glazes do not appear to be known. Those which we see upon their ancient porcelain would seem to be derived from the same substances as those now employed, namely, mixtures in which felspar forms a chief ingredient, and which usually require "high firing," or considerable heat to melt them. Such glazes would be little applicable to the ware of those ancient nations whose pottery has become known to us,—ware which for the most part is not of a very refractory kind. At the same time, although this kind of glazing may not have been applicable, even supposing the necessary materials could be obtained, or that a knowledge of them so far existed as to lead to their discovery in other lands than China, a piece of glazed pottery of any kind could not fail to show the importance of a glaze, and produce a desire for its imitation.

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* Probably this application of unglazed ware was known in early times, seeing that the comparative coolness of water in porous vessels, from the reduction of temperature consequent upon the evaporation of the water percolating through their walls, would have been readily observed and appreciated in warm climates.

The composition of glazes requires to be such that when they are exposed to the heat necessary for vitrification they shall unite with the paste or body, and that in cooling they shall not split, crack, or *craze*, in consequence of their contracting during firing to such an extent that they cannot, when fired, completely cover the pottery or porcelain beneath. The glassy substances employed as glazes,—metallic silicates and borates,—firmly unite with the paste or body beneath, and thus a complete union is effected. The substances commonly used in the production of glazes are quartz, flint, felspar, gypsum (hydrous sulphate of lime, or calcic sulphate), borax (hydrous biborate of soda, or sodic diborate), boric acid, common salt (sodic chloride), potash, soda, and red oxide of lead. Some glazes are first formed into *frits*, or imperfectly vitrified bodies, and then pounded for use. Coloured glazes are formed with the addition of certain metallic oxides, such as those of manganese, copper, iron, chromium, cobalt, &c. Opaque glass or enamel is made with oxide of tin, and sometimes with phosphate of lime or with arsenious acid.

Egyptian Glazes or Enamels.

When or wherever the use of glazes may have originated, it is certain that they were employed at an early period in Egypt.* It would appear that the ware made, like ordinary unglazed Egyptian pottery, from the common clay of the Nile, would not readily adhere to such glazes or enamels as the Egyptians employed; and hence arose the necessity for introducing a different material, when it was proposed to glaze the surface. Accordingly we find that their small glazed figures and other ornamental objects are composed in the interior of grains of sand cemented together by some vitreous matter, commonly silicate of soda. Such a body could have, as Dr. Birch remarks, very little plasticity; but although thus ill-suited to be worked on the lathe, it was readily stamped in moulds, and it is therefore by this means that most of the objects were formed. The greenish, greenish-blue, and blue glazes frequently seen on Egyptian ware are due to a silicate of protoxide of copper and soda; this cupreous enamel appears indeed to have been that most largely employed. Glazed bodies of this character are known as old as the sixth dynasty.† This glazing was not, however, confined to such compositions, for scarabæi and other figures are found carved in a steatitic material, which has evidently been dipped in a similar glaze and fired, the steatitic substance readily resisting the heat required for fusion of the glaze.

C. 1. }
C. 2. } Egyptian Sepulchral Figures, formed of a frit coated with a pale blue cupriferous glaze, applied after the figure had been moulded.

These figures, called *shabti* or *shabshab* represent the deceased enveloped in bandages. The body is stamped with an inscription in hieroglyphics from the Ritual of the Dead. Each figure is mounted on a plinth, and supported at the back by a flat column.‡

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* "Opaque glasses or enamels, as old as the XVIIIth dynasty, and enamelled objects as early as the IVth, have been found in Egypt." "History of Ancient Pottery," by Samuel Birch, F.S.A., 1858, vol. i. p. 6.

† "History of Ancient Pottery," by Samuel Birch, 1858, vol. i. p. 68.

‡ For a full description of such figures, see Dr. Birch's "Ancient Pottery," 1873.

C. 3. **Sepulchral Figure**, coated with greenish-blue cupriferous glaze.

In this specimen the stamped inscription it confined to the dorsal pillar.

C. 4. **Sepulchral Figure**, with light-coloured glaze, tinted in places pale green.

The surface presents a number of vesicular cavities, which seem to indicate that it has been subjected to a fair amount of firing.

C. 5. to C. 8. } **Sepulchral Figures**, of a similar character to the previous specimens, broken to show the kind of paste or frit of which they are composed.

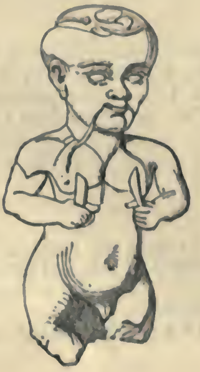
According to analyses made in the laboratory of this establishment, the white interior is composed of fine sand cemented by silicate of soda; the soda was probably introduced in the form of a carbonate (derived perhaps from the Natron Lakes), and having been mingled with the sand, the mixture was fired. The glazed frits are often, though incorrectly, known as Egyptian "porcelain."

C. 9. **Sepulchral Figure** of Ankh-har, Governor of the South; in bright blue vitreous frit, with similar glaze.

The distinction between the body and the glaze is less marked in this specimen, than in most of the others; the surface is, however, more vitreous than the interior. There is no dorsal pillar to the specimen, and the body is covered with horizontal bands of impressed hieroglyphic inscriptions.

C. 10. **Figure** of Ptah-Sekeri-Hesar (fig. 2), coated with a bright turquoise-blue glaze.

Fig. 2.

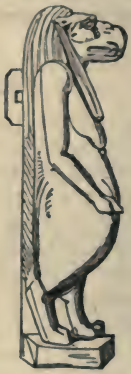


The fracture of this specimen shows that the body or paste is a somewhat vitreous frit. A loop at the nape of the neck has served for the attachment of this figure to the ornaments of a mummy. The head is surmounted by a scarabæus.

C. 11. C. 12. } Two small **Figures** of Ta-hur (Thoueris), fig. 3; the body slightly different in the two figures, and the cupriferous glaze presenting two shades of turquoise blue.

This deity is figured in form of a hippopotamus standing erect, and having behind the tail of a crocodile.

Fig. 3.



C. 13. **Figure** of Ra (the Sun), a hawk-headed deity bearing a representation of the solar disc.

The body in this specimen is tolerably distinct from the glaze with which it is covered. The figure is perforated for suspension.

C. 14. **Figure** of Pasht (Bubastis), surmounted by the solar disc.

The glaze is of a light greenish colour, and the surface presents vesicles which seem to point to a fair degree of firing.

C. 15. **Figure** of Tat, in shape of a Nilometer, the emblem of Stability; coated with a pale greenish glaze.

C. 16. **Figure** of a Fish; coated with turquoise blue glaze, blebby in parts.

The dorsal fin is coated with a dark-coloured, almost black enamel. The figure is perforated through the mouth for suspension as an amulet.

C. 17. The Sacred Eye, formed of a frit coated with a blue cupriferous glaze; the centre of the eye represented by a blue-black enamel.

The symbolical eye is found with Egyptian mummies, usually near the incision which was made for evisceration in the process of embalming.

C. 18. String of Beads, formed of a brown paste coated with a bright blue cupriferous enamel.

These beads are simply flat circular discs, like bone buttons, perforated for stringing. The character of the paste is seen in the broken bead.

C. 19. Two Circular Discs of coloured frits.

Each disc is formed by the union of two thin slabs, the lower being whitish and the upper grey, and inlaid with a white star of eight rays; the central boss yellow.

C. 20. Tablets supporting several similar discs or rosettes of inlaid frits, from the wall-decoration of a palace at Tel el Yahoudeyeh, Lower Egypt.

Presented by the Rev. J. Greville Chester, M.A., 1871.

C. 21. Pectoral Plate from a mummy, carved in a steatitic substance, coated with cupriferous glaze, and inlaid with enamels.

This plate is in the form of an Egyptian doorway with recurved cornice, and has carved upon it, in low relief, a subject representing the adoration of the jackal of Anubis. The carved steatite was dipped into the cupriferous glaze, and then exposed to the heat necessary for vitrifying the glaze. Portions of a frit covered with a deep blue glaze, together with pieces of yellow aragonite, were then inlaid in cavities excavated in the steatite; thus filling up the general design. As these cavities are lined by the green glaze, it is evident that they were carved previously to the glazing. The pectoral plate was suspended from the neck of the mummy by a cord passing through apertures pierced in the cornice. The plates were known as *uta* or *uja*.

C. 22. Tablet supporting several Scarabæi, either formed of frit bodies or carved in steatitic minerals, and coated with coloured glazes, chiefly blue and green.

The elliptical base of each specimen is impressed, or carved in intaglio, with hieroglyphics, and is bored through its longer diameter either for stringing or for mounting as a signet ring. The scarabæus, or sacred beetle of the Egyptians, was called *Kheper*, or "Creator."

C. 22*a*. Female Figure, with winged arms, carved in low relief in wood, inlaid with coloured enamels, and gilt.

Some of these enamels present a turquoise-blue colour, similar to that of the cupriferous glazes on many of the foregoing specimens, whilst others possess a rich blue tint resembling a cobalt blue; it has, however, been proved by examination in the laboratory of this institution that this deep blue colour is produced by copper and not by cobalt. Some fragments of the blue mosaic are tipped with a red enamel; all the pieces have been carefully ground to fit into the depressions carved in the wood. Traces of gilding which are still to be detected on the figure show that the elevated wooden partitions between the several pieces of enamel were originally gilt; and those portions of the figure which are not covered by mosaic work appear to have been enriched by painting and gilding.

Assyrian and Babylonian Glazes.

The glazed ware of Assyria and Babylonia was inferior in every respect to that of Egypt. Many of the specimens which have come down to us show the application of a coloured glaze or enamel to the surface of bricks for the purpose of ornamental architecture,—an application which was probably derived by the Assyrians from the Egyptians.* Investigations at this institution have shown, as regards the specimens of Babylonian bricks noticed beneath, that with a soda-glass, or silicate of soda, an opaque white colour was obtained by the use of oxide of tin, while a yellow was produced by means of antimony and lead (antimoniate of lead, or "Naples yellow"). The blue colour derived from copper was previously well known, but the occurrence of lead in the blue enamel, oxide of lead probably having been employed as a flux, had not been previously ascertained. From the manner in which the Babylonian bricks are coated, the glaze having run over and down the sides, it would appear as if the glazing composition had been applied while the face of the brick to be glazed was horizontal, and that this position of the surface was maintained when the brick was fired, in order to vitrify the composition. The Assyrian enamelled bricks in this collection appear to show that similar glazes or enamels were probably employed by the Assyrians at a still earlier date. The bodies of all the Assyrian and Babylonian bricks mentioned below contain calcareous matter. One of the specimens is unglazed.

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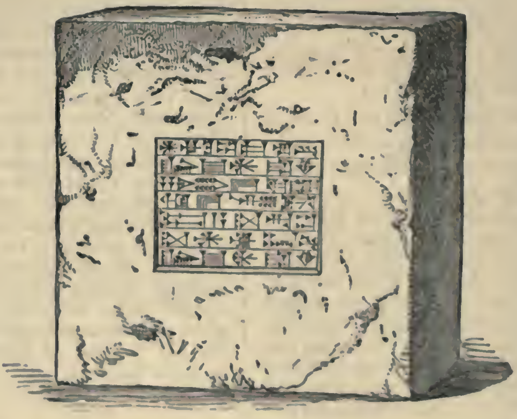
* Birch's "History of Ancient Pottery," vol. i. p. 126.

C. 23. **Babylonian Brick** (fig. 4), 13 inches square and 3 inches thick; pale buff body, with cavities left by removal of chopped straw which had been mixed with the clay, and was decomposed during the baking; stamped with inscription in a rectangular depression, 6 inches by 4 inches, containing seven lines of arrow-headed characters; unglazed.

Fig. 4.*



The cuneiform inscription on this brick has been translated as follows:—

Nebuchadnezzar
King of Babylon
Restorer of Bitzazgal
And Bitsidda
Eldest Son
Of Nabopolassor
King of Babylon.

Presented by the Council of the Royal Institution, 1871.

C. 24. **Fragment of Enamelled Brick**, with enamel much decomposed, from Nimroud (Nineveh). This brick may date from B.C. 800 to B.C. 900.

Collected and presented by the Rt. Hon. H. A. Layard, D.C.L.

From analyses of Babylonian enamelled bricks, it is probable that the opaque white colour in this specimen is stanniferous, while the yellow resembles that on No. C. 27, and is therefore probably formed of lead and antimony. The blue-green colour is due to copper, and the brown probably to iron. The brick itself is of baked clay, with impressions showing that it had been worked up with small vegetable stems, such as straw and grass. Many fine specimens of the like kind are to be seen in the British Museum.

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* This woodcut, from Birch's "Ancient Pottery," 1873, Fig. 87, has been kindly furnished by Mr. Murray.

C. 25. Fragment of Enamelled Brick, from Khorsabad, Assyria. Date probably about B.C. 700.

Collected and presented by the Rt. Hon. H. A. Layard, D.C.L.

In this specimen, as in the last, the white colour is probably stanniferous; the yellow formed from antimony and lead, and the green from copper. The body of the brick is of the same kind as in the last specimen; a pebble is seen in the middle of the brick.

C. 26. Fragment of Enamelled Brick (blue), from Babylon. Date possibly about B.C. 600.

Collected and presented by W. Kennett Loftus, Esq.

The blue colour of this glaze or enamel is due to a silicate of protoxide of copper and soda. The glass also contains some lead, probably used as a flux. The thick glassy coating extends over the corner of the brick, thus showing that it was applied in a liquid state to a surface somewhat horizontal, and that part of the liquid ran over the sides. A red colour on one side of the brick where the substance of the glaze had run over is due to the reduction of the silicate of protoxide of copper to the state of silicate of suboxide of copper.

C. 27. Fragment of Enamelled Brick (yellow), from Babylon. Date possibly about B.C. 600.

Collected and presented by W. Kennett Loftus, Esq.

The base of this enamel or glaze, like that of the last specimen, is a silicate of soda, and the yellow colour is produced by oxide of antimony and lead ("Naples yellow"). It is evident that the glaze was laid on when the brick was placed horizontally with the face upwards.

C. 28. Fragment of Enamelled Brick (white), from Babylon; the opaque white colour due to peroxide of tin. Date possibly about B.C. 600.

Collected and presented by W. Kennett Loftus, Esq.

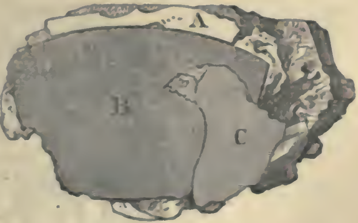
Indian Enamels or Glazes.

C. 29. Enamelled Frits inlaid in base of chunam, so as to form a pattern (fig. 5); from the tombs of the Kootub (Shahee dynasty), Golconda. Date about the 15th century.

Presented by Major Oliphant.

The Egyptian method of enamelling frits composed of silicious sand cemented by some alkaline silicate seems to have been introduced into India by the Mohammedans. In this specimen the frits are enamelled with differently coloured glasses, and the enamelled frits then cut so as to form a design in mosaic when embedded in a wall of chunam or plaster. A portion of a bird (C) is represented in yellow on a turquoise-blue ground (B) with a margin of white (A). The blue colour, probably formed by a silicate of copper and soda, as in the Babylonian brick, closely resembles the turquoise blue of the Sèvres porcelain. These enamelled frits have been used in India from the 13th century, and it is said that they are still made in Scinde.

Fig. 5.



Greek Glazes.

It has been supposed that the black glaze employed in the Greek vases, especially those found in the Campania, is due in great part to volcanic ashes spread by the brush over the required portions, the vases being then exposed to the heat necessary for their fusion. The white and other colours used upon these vases are not enamels, but coloured clays or *engobes* painted on the vases after the design had been sketched. There are some excellent specimens in the British Museum, showing, in those places where the engobes have peeled off, a freedom of hand which much surpasses that exhibited by the finished work, as might, indeed, be expected from the greater difficulty of working with coloured clays of the proper consistency. According to M. Salvétat, who analyzed the black glaze of some Greek pottery (Campanian), it had the following composition:—

Silica	46·3
Alumina	11·9
Lime	5·7
Magnesia	2·3
Soda	17·1
Oxide of iron	16·7
	100·0

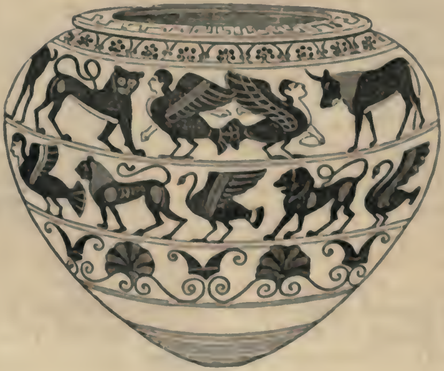
The quantity of soda in this compound, which otherwise does not very materially differ in constitution from some volcanic ashes, might lead to the supposition that it had been added as a flux. The whole, indeed, may have been artificial, but whether natural or artificial, its use in painting on these vases illustrates the application of a glaze to Greek pottery for ornamental purposes.

The following specimens are placed in the glass cases standing on the bridge over the staircase leading from the hall.

C. 30. **Early Greek Vase** (fig. 6); height, 8½ inches; greatest diameter, 11½ inches. Date about 700 B.C. Body reddish; figures first sketched in red, then coloured by black glaze and fired; engobes of white and red added in parts, and portions of the figures picked out by scratching through the glaze with a point. Found at Vulci, Etruria.

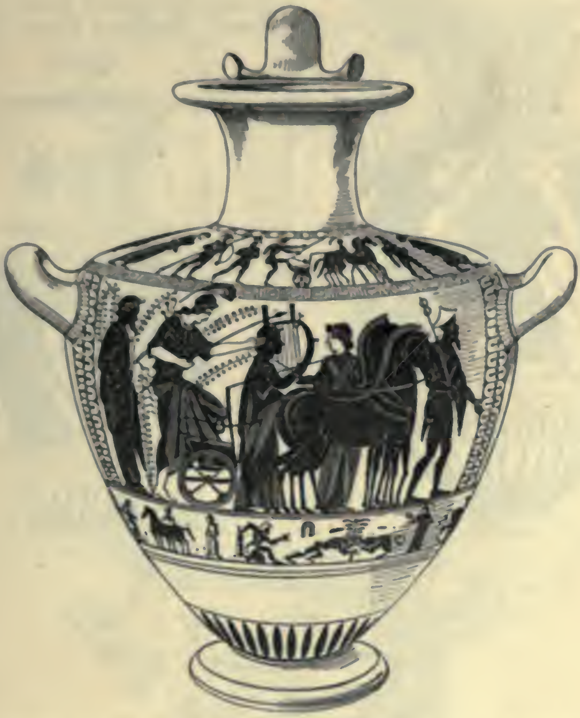
C. 31. **Greek Hydria** or Water Vase (fig. 7); height, 22 ins., diameter of shoulder, 13 ins. Date about 500 B.C. to 400 B.C. Body red;

Fig. 6.



figures and pattern in black glaze, which covers also a large part of the vase beneath; white and red engobes on parts; details of figures picked out through the glaze with a point. Found at Vulci, Etruria.

Fig. 7.



C. 32. Greek Amphora (fig. 8); height, 16½ ins.; greatest diameter, 10 ins. Date about 500 b.c. to 400 b.c. Body red; figures and pattern drawn in black glaze; white and red engobes in parts; minor details picked out by scratching through the glaze with a point. Found at Vulci, Etruria.

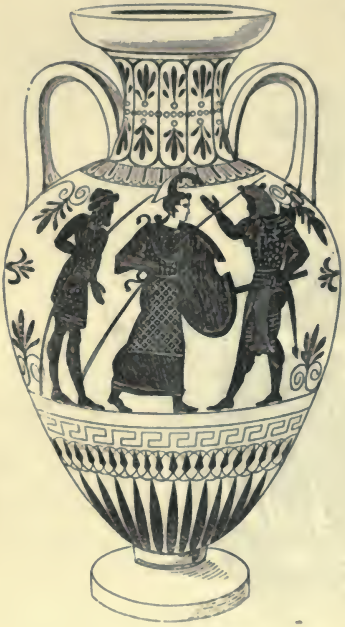
C. 33. Greek Amphora (fig. 9); height, 10½ ins.; greatest diameter, 6½ ins. Date between 500 b.c. and 400 b.c. Body reddish; figures and other parts of the design drawn with black glaze; white engobe in parts; detail of figures worked out by scratching through the glaze with a point. Found at Vulci, Etruria.

The use of compasses is shown by the circles round the pupils of the large representations of eyes on the side of the vase. See also the double circles of the chariot wheels on No. C. 31.

C. 34. Greek Amphora (fig. 10); height, 12¼ ins; greatest diameter, 8 ins. Date about 300 b.c. Body reddish; figures left in red by painting the ground with black glaze; white engobe in parts. Found at Ruvo, Naples.

C. 35. Greek Amphora (fig. 11); height, 10½ ins.; greatest diameter, 9 ins. Date about 300 b.c. Body red; figures left in red by black glaze on ground, the glaze very lustrous. Found at Nola, Naples.

Fig. 8.



C. 36. Greek Oxybaphon (fig. 12); height, 12½ ins.; diameter of rim, 13 ins. Date about 400 B.C. Body red; figures and pattern left in red by painting with black glaze; details of figures sketched in black glaze. Found at Ruvo, Naples.

Fig. 9.

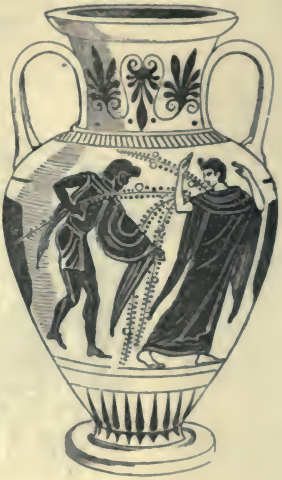


Fig. 10.

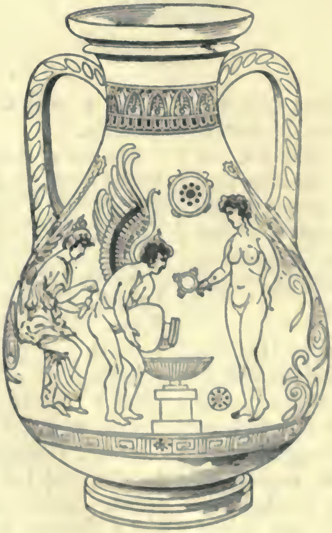


Fig. 11.

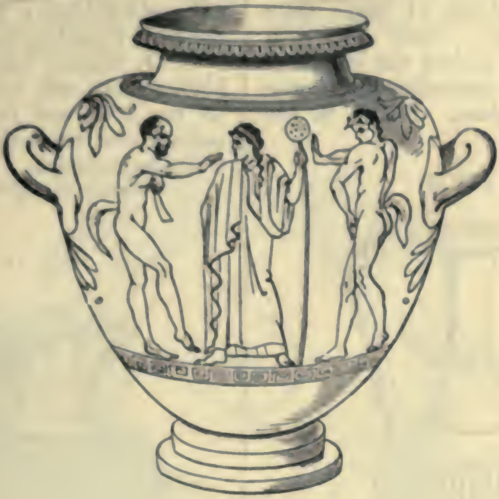
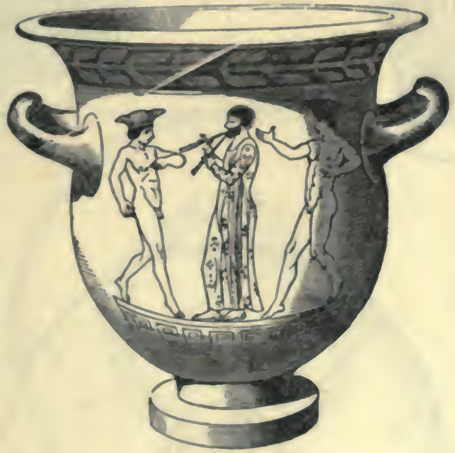


Fig. 12.

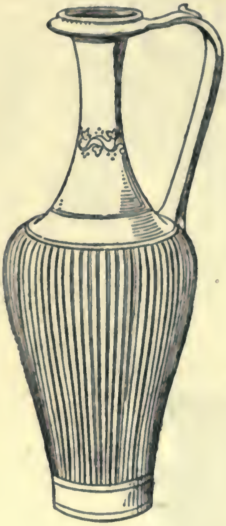


C. 37. **Greek Œnochoë** (fig. 13); height, 13 ins. Date about 200 B.C. Body red, ribbed, and turned; glaze black; painted around neck in engobe over glaze, and partly scratched in with the point through the glaze. Found in the Campania.

C. 38. **Greek Œnochoë** (fig. 14); height, 10 ins. Date about 200 B.C. Ribbed and turned; body wholly covered outside, except the bottom, with black glaze; inside only partially glazed. Found in the Campania.

C. 39. **Greek Œnochoë**, with trefoil lip similar to that of last specimen; height, 11 ins. Date about 200 B.C. Body red, with coarse design picked out in red by painting the remainder of the vase with black glaze. Found in the Campania.

Fig. 13.



C. 40. **Greek Aryballos**, 6¼ ins. high. Date about 200 B.C. Body red; glaze black; surface slightly ribbed. Found in the Campania.

C. 41. **Greek Lecythos**, 9¾ ins. high. Body red, with black glaze on the neck and foot; design in colours obscure, and coated with a white incrustation.

From the Bandinel collection.

Fig. 14.

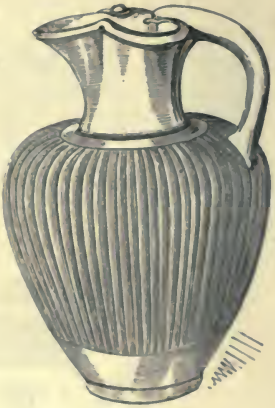
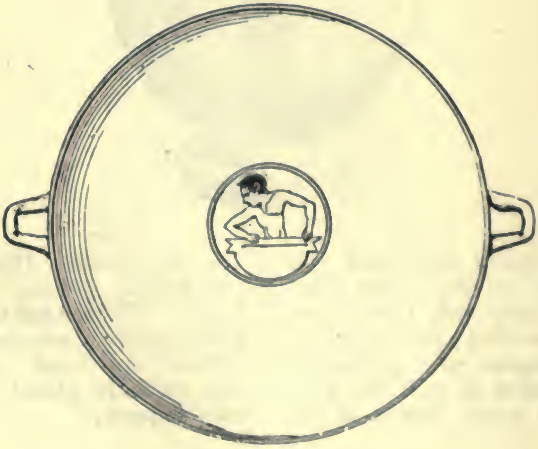


Fig. 15.



C. 42. Greek Cylix (figs. 15 and 16); diameter, 13¾ ins. Date about 400 B.C. Body red; figures left in red by painting the other parts with black glaze; details freely sketched in black glaze. Found at Vulci, Etruria.

Fig. 16.

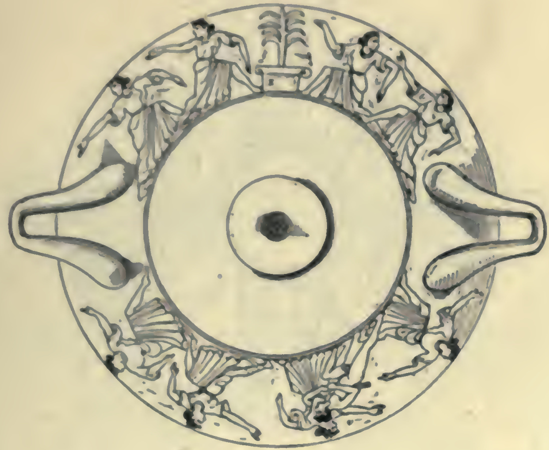
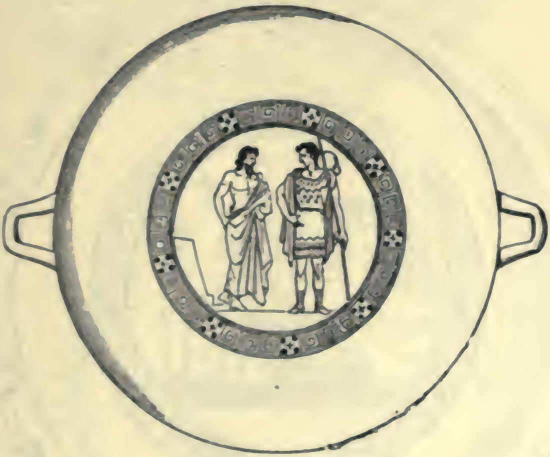


Fig. 17.



C. 43. Greek Cylix (figs. 17 and 18); diameter, 11 ins. Date about 370 B.C. Body red; figures left in red by painting the other parts in black glaze; details of figures sketched in black glaze. Found at Vulci, Etruria.

C. 44. **Greek Cylix** (figs. 19 and 20); diameter, 16 ins. Date about 270 B.C. Body red; figures left in red; white engobe in parts; pattern partly scratched in with a point. Found at Ruvo, Naples.

Fig. 18.

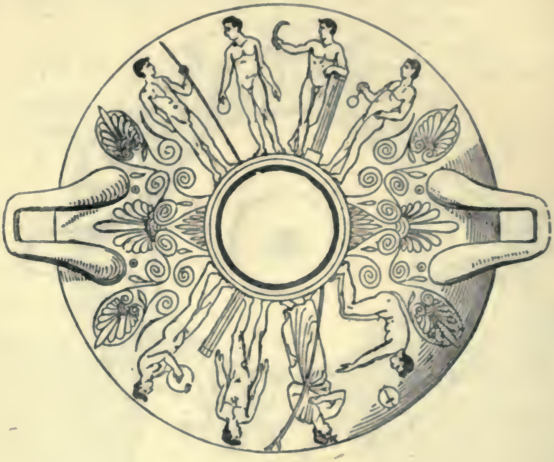
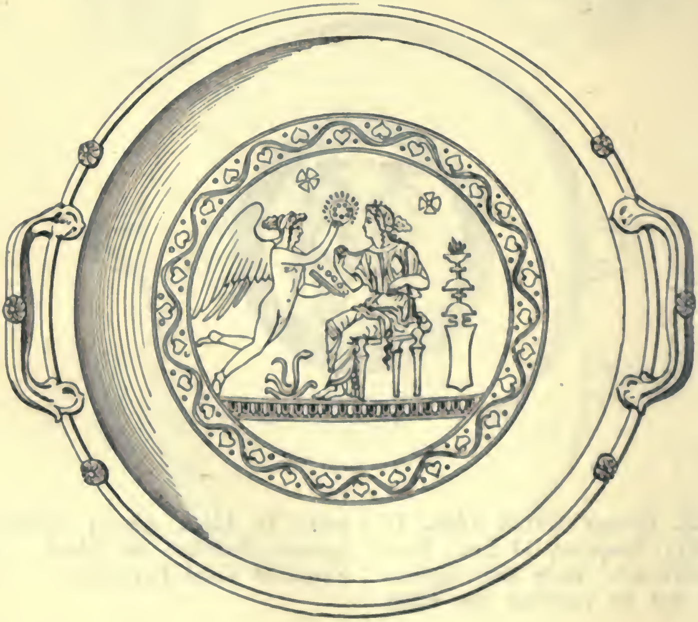


Fig 19.



C. 45. **Greek Cylix** (fig. 21); diameter, 8 ins. Body reddish; figures and pattern left in red by painting with black glaze. Found in the Campania.

C. 46. **Greek Cylix** (figs. 22 and 23); diameter, 8 ins. Body red; glaze black and brilliant; beautifully turned with elegant impressed pattern inside (fig. 22). Found at Nola, in the Campania.

Fig. 20.

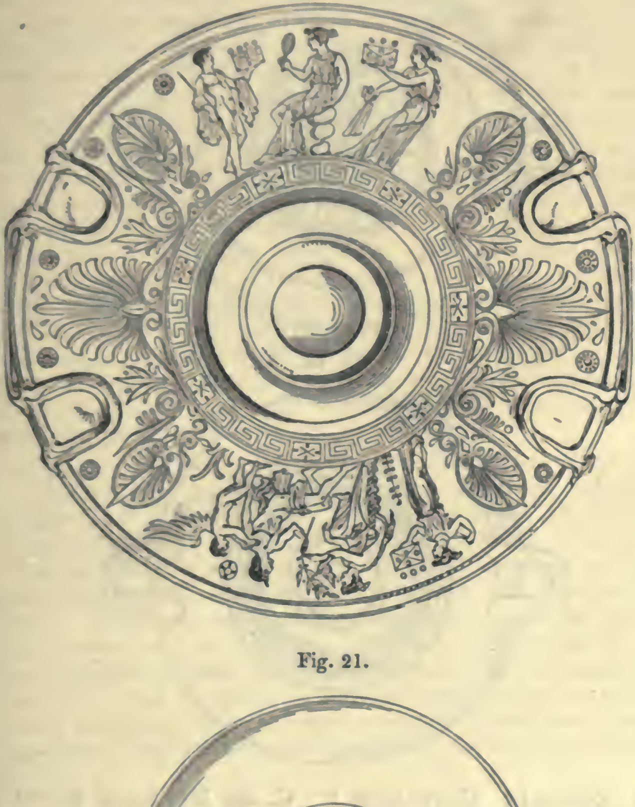
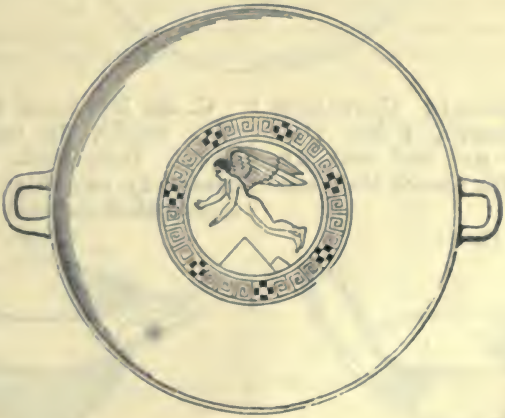


Fig. 21.



C. 47. Greek Scyphos (Basilicate ware); height, $5\frac{1}{8}$ ins.; diameter, $5\frac{5}{8}$ ins. Date about 200 B.C. Body reddish; figures in red left by black glaze.

C. 48. Crater, 9 ins. high, executed in style of the Greek vases, though coarse. Body reddish; figures left red by black glaze; white engobe in higher parts.

Fig. 22.

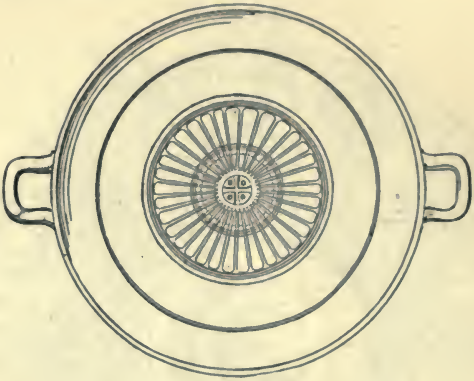
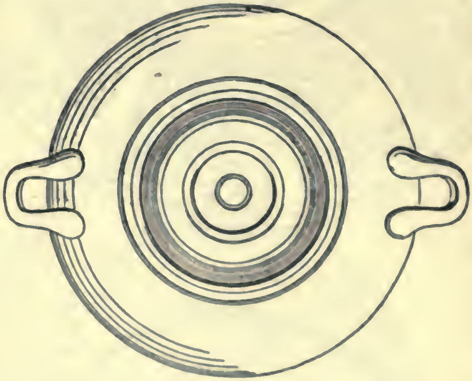
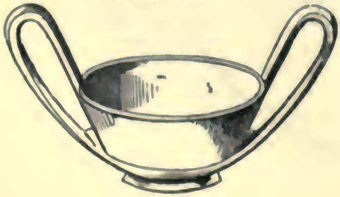


Fig. 23.



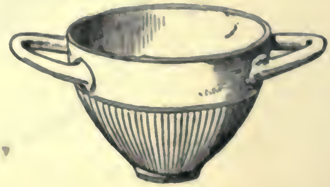
C. 49. Etruscan Cantharos (fig. 24); diameter, 4 ins. Date between 500 B.C. and 400 B.C. Body black, with smooth black surface or glaze.

Fig. 24.



C. 50. Etruscan Scyphos (fig. 25); height, $3\frac{1}{8}$ ins.; diameter, $3\frac{3}{4}$ ins. Body black, partly ribbed outside by scratching with a tool; smooth black external surface.

Fig. 25.



C. 51. ETRUSCAN ŒNOCHOË; height, 8 ins. Date between 500 B.C. and 400 B.C. Body black, with smooth external surface resembling glaze; vessel turned on the lathe.

Lead Glazes.

Lead has been found, as previously stated (p. 30), in the enamel or glaze of the Babylonian bricks. Brongniart refers to a Roman lamp in the *Bibliothèque Impériale* at Paris of about the second or third century of the Christian era, with a green cupreous glaze containing lead; as also a small statuette of Venus Anadyomene, supposed to be less ancient than the lamp, in like manner covered with a green glaze containing lead. The Arabs employed a plumbiferous glaze in the ninth century, for some fragments of Arab pottery of that date, in the Ceramic Museum at Sèvres, have a lead glaze. Two broken vases now preserved at Sèvres, which were taken from a tomb of the date of 1120 in the celebrated Abbaye de Jumièges, have plumbiferous glazes, the one yellowish and the other a brilliant green. How far these vases may have been manufactured in France is uncertain; but if the statement of Passeri be well founded, that in 1100 a lead glaze was produced on the pottery then manufactured at Pesaro by covering the body or paste with oxide of lead, plumbiferous glazes must have been employed in Europe in the early part of the 12th century. Lead glaze was in use in Alsace in the 13th century. Stazlstatt, who died in 1283, is commonly reputed to have been the first person in Alsace who glazed fictile ware with lead.

The Moors introduced their lead glaze into Spain in the 13th century, and about that time its use seems to have spread in different countries. The tiles used in the French castles and abbeys of the 13th century (Abbaye de Voulton, near Provins, Fontainebleau, Château de Gisors, St. Etienne d'Agen) were covered with a lead glaze, as also were the various Norman tiles which have been used in the churches and castles of England. From its easy fusibility this glaze seems to have been very commonly employed in the 14th, 15th, and 16th centuries. It still continues to be much used for glazing common earthenware, although it is desirable to avoid as much as possible such glazing on vessels used for domestic purposes. The following may be taken as examples of the composition of the plumbiferous glazes used for ordinary English earthenware:*—

	Cream-colour Glaze.	Printed ware Glaze.
Carbonate of lead - -	66	45
Cornish china-stone - - -	22	28
Flint - - - -	12	13
Flint glass - - - - -	—	14
	100	100

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* "Chemical Technology," by Dr. F. Knapp, edited by Dr. E. Ronalds and Dr. T. Richardson, vol. ii. p. 477.

The annexed are examples of glazes containing lead used for some of the soft English porcelains:—

I.

	Parts.
Cornish china-stone	100
Calcined flint	60
Carbonate of lime	25
Cornish kaolin	10
Soda	10
Borax	60
Carbonate of lead	30

These substances are fritted together with 20 per cent. of carbonate of lead and 10 per cent. of flint.

II.

	Parts.
Cornish china-stone	34
Chalk	17
Flint	15
Borax	34
	100

These materials are fritted together and the glaze formed of 69 per cent. of the frit, 10 per cent. of Cornish china-stone, and 21 per cent. of carbonate of lead.

C. 52. Encaustic Tile, from an ancient kiln, Droitwich, Worcestershire. Date, end of 13th century. Design, a lion in yellow upon red ground, surrounded by a circle, with fleur-de-lis filling up the corners of the square tile. Lead glaze.

C. 53. Encaustic Tile, from Droitwich. Design, the Royal Arms of England. Lead glaze.

C. 54. Encaustic Tile, from Droitwich. Design, letters A, B, C, &c., forming a legend round a six-petalled flower. Lead glaze.

C. 55. Encaustic Tile, from Droitwich. Design, two birds, one on each side of an ornament, passing diagonally across the tile. Lead glaze.

C. 56. Encaustic Tile. Date about A.D. 1300. Design, a double-headed eagle surrounded by a circle, yellow upon brown ground. Lead glaze.

C. 57. Encaustic Tile. Date 15th century. Design, a mermaid surrounded by a circle, with fleur-de-lis, in yellow on red ground. Lead glaze.

C. 58. Encaustic Tile, from Malvern. Date, 15th century. Design, crown surmounting the letter M, in yellow upon a red ground. Lead glaze.

C. 59. Encaustic Tile, fragment, from Malvern. Design, Gothic ornament with date of 36th Henry VI. (1458); yellow upon red ground. Lead glaze.

C. 60. Encaustic Tile, from East Hampstead Park, Berkshire. Date, 15th century. Design inlaid in orange upon a red ground, forming part of a general design. Lead glaze.

Presented by the Marquess of Downshire.

C. 61. Encaustic Tile, from Reading Abbey. Design, a seven-petalled flower; red and ash-coloured clays, coated with greenish lead glaze, much worn.

C. 62. Encaustic Tile, triangular; from Reading Abbey. Design in yellow, red, and green, forming part of a general pattern. Lead glaze.

C. 63. Encaustic Tile, triangular; from Reading Abbey. Design, fleur-de-lis and six-petalled flowers; the glaze for the most part worn off.

C. 64. Embossed Tile, triangular; from Reading Abbey. Design, fleur-de-lis; red paste coated with greenish lead glaze.

C. 65. Embossed Tile, with the word "Thomas" reversed; found at Castle Acre, Norfolk; supposed to have been made at Bawsey, Lynn, in the 14th century. Lead glaze.

C. 66. Embossed Tile, one of four forming a design; from Tavistock, Devon. Date about 16th century. Lead glaze.

C. 67. to C. 69. } Embossed Tiles, with lead glaze; discovered in the ruins of the Cistercian Nunnery at North Berwick, founded by Lord Hailes before 1158.

Presented by the late Prof. George Wilson, F.R.S.

C. 70. C. 71. } Arab Tiles, two fragments, from Mansourah, near Tlemcen, Algeria; built by the Emperor of Morocco, A.D. 1402. Body coarse, red; coated with a green lead glaze containing copper.

Presented by the Rev. C. Best Norcliffe.

C. 72. Chinese Tile, from the Porcelain Tower, Nanking. Date 1411. Body buff-coloured, unglazed.

C. 73. Chinese Tile, from the Porcelain Tower, Nanking. Body buff-coloured, partly coated with a green lead glaze.

Nos. 72 and 73 presented by His Grace the Duke of Northumberland.

C. 74. to C. 80. } Architectural Ornaments, in coloured glazed ware, used in the Imperial Palaces and Temples in Peking.

Presented by Dr. Lockhart.

These ornamental tiles are coated with a lead glaze coloured blue, green, and yellow. It has been found by examination in the laboratory of this institution that the blue glaze is coloured by the presence of cobalt. There is no antimony in the yellow glaze.

C. 81. Architectural Ornament, in form of grotesque crowned head; from China.

The chief portion of this figure is formed of a buff-coloured paste, but where a deep red colour is required, as in the crown and in the conventional eyebrows, it is obtained by the use of a red clay applied to the necessary parts. The whole is coated with a transparent yellowish glaze, modified by the colour of the paste beneath, and thus presenting a deep red tint where it covers the red clay. The colours of the eyes and of the bosses on the crown are obtained by the use of green glazes.

Tin Glazes or Enamels.

When certain infusible substances, in a finely-divided state, are introduced into the substance of a glaze, the particles remain mechanically suspended in the vitrified product, which thus acquires more or less opacity. Binoxide of tin employed in this manner produces an opaque white enamel, which has been largely applied to the glazing of certain kinds of pottery, since it forms a surface well adapted to receive painting. It is generally supposed that the use of tin for this purpose originated with the Persians and Arabians, but it has been shown that stanniferous glazes were used in Assyria and Babylon (p. 30). We are not aware that such glazes have yet been found among the productions of the ancient Chinese. Brongniart infers that tin glazes or enamels were known to the Arabs of Northern Africa in the ninth century. From the evidence of the bricks with stanniferous glazes from Babylon and Nineveh, the use of such glazes may readily have been derived from the countries east of the Mediterranean. The tiles employed at the tomb of Mahomet at Medina, built in 707, have, however, neither tin nor lead in their glaze.

It seems clear that stanniferous glazes were introduced into Europe by the Arabs or Moors during their power in Spain. There still remain some beautiful works in enamel tiles in that country, especially at the Moorish palace of the Alhambra, where many of the tiles are coated with a stanniferous glaze. The dates of the earlier of these tiles at the Alhambra would range from 1273 to 1302. Tiles of a like general kind are still manufactured at Valencia. It has been suggested by Mr. Drury Fortnum that the occurrence of tin-ore in Spain may have led originally to the accidental discovery of tin glazes or enamels.

C. 82. FRAGMENT of TILE from the Alhambra ; of early date. Paste or body reddish, upon the face of which a coating of white opaque stanniferous enamel was spread, and upon this the design was subsequently painted in blue and brown enamels. The brown enamel when viewed at a certain angle is seen to be iridescent.

C. 83. FRAGMENT of TILE from the Alhambra ; of early date. Paste reddish ; design only partly executed in white enamel, the remainder being formed by green and black enamels and by uncovered portions of the paste or body.

C. 84. LARGE FRAGMENT of TILE from the Alhambra ; date probably later than that of the preceding pieces. Paste reddish ; design first impressed on the surface of the tile, and including in the centre a shield with a bend bearing an Arabic inscription ; a coating of white stanniferous enamel was then applied, upon parts of which blue and brown enamels were painted.

C. 85 SMALL TILE from the Alhambra ; date probably not far removed from that of preceding piece. Paste brown ; design impressed, and the surface then covered with opaque white stanniferous enamel, upon which blue, brown, and green enamels were subsequently painted.

C. 86. FRAGMENT of TILE or BRICK from the Alhambra ; date apparently much removed from that of the early tiles of the Alhambra. This piece apparently formed the corner of some work, as two surfaces are enamelled. Paste, light brown ; the two surfaces first covered by opaque white stanniferous enamel, upon which the design was traced in blue, leaving portions of the white, on some of which yellow and orange-coloured enamels were subsequently used.

C. 87. FRAGMENT of Hispano-Moorish TILE from the Alcazar, Seville. Paste, brown ; surface first covered with opaque white stanniferous enamel, upon which the design was sketched in brown, some parts being subsequently covered with blue, green, orange, and yellow enamels, while others remain white.

C. 88. SMALL TILE from the Alcazar, Seville ; showing that all the tiles employed there were not first covered with the white opaque stanniferous glaze, since the surface of this specimen, which is formed of a light brown paste, was covered directly by a blue enamel, like the enamelled Babylonian brick No. C. 26.

C. 89. FRAGMENT of ancient TILE, with impressed pattern, filled in with coloured enamels on white ground. From Castares, Alpujarras, Andalusia.

Presented by H. Bauerman, Esq., F.G.S., 1872.

C. 89*a*. FRAGMENT of a TILE found in the ruins of a mosque, near Cairo. Paste, pale brown, painted with part of a design in blue and bluish green under the glaze.

Presented by H. Bauerman, Esq., F.G.S.

C. 89*b*. ANCIENT TILE, from Damascus; rectangular, 11 ins. by 10 ins., and $\frac{7}{8}$ in. thick; pale buff paste, painted with geometrical pattern in dark blue, turquoise blue, and purple, on opaque white ground and coated with thick glaze.

Presented by the Rev. J. Greville Chester, M.A., 1874.

C. 89*c*. FRAGMENT of hexagonal TILE, from Damascus; paste almost white, painted with flowers in deep blue on white ground under the glaze.

Presented by the Rev. J. Greville Chester, M.A., 1874.

C. 89*d*. LARGE FRAGMENT of TILE, from Damascus; yellowish white paste, coated with opaque white tin enamel painted with scroll work and flowers in dark blue, turquoise blue, green and purple.

Presented by the Rev. J. Greville Chester, M.A., 1874.

C. 89*e*. TABLET supporting ten fragments of pottery, exhibiting various glazes and enamels, from the mound of Fostat (Old Cairo).

Presented by the Rev. J. Greville Chester, M.A., 1872.

*Majolica Ware.**—Though Moorish tiles were probably introduced into Italy at the conquest of Majorca by the Pisans in 1115, and such tiles were sufficiently esteemed to be employed for ornamental purposes in the churches of Pisa and other places, it is by no means clear when and how a knowledge of tin glazes passed into Italy. It has been generally considered that they were first used by Luca della Robbia, the Florentine sculptor so celebrated for his terra-cotta figures and bas-reliefs covered with stanniferous glazes. Della Robbia was born about the year 1400, and was eminent as a sculptor in bronze and marble before he modelled in clay for terracottas. He died in 1481. During his lifetime and for long after his death similar work was executed by his assistants Ottoviano and Agostino, his nephew Andrea, and his great nephews Giovanni, Luca, and Girolamo. The colours which these masters employed were yellow, opaque blue, green, and violet.

Although Luca della Robbia has usually been regarded as the first to employ stanniferous glazes in Italy, it is not improbable that he may have derived his knowledge of such glazes from the early samples of Italian Majolica ware, which are coated with a similar enamel, and are apparently of an age contemporaneous with that of Della Robbia's earliest efforts in this direction.* The early examples of Majolica or "Raffaelle" ware resemble the Moorish pottery from which it took its origin. The term Majolica is, indeed, derived from Majorca,—an island which, according to Fabio Ferrari, was called Majolica by the ancient Tuscan writers, and whence this kind of pottery was introduced into Italy. The popular designation of Raffaelle ware has arisen from its decoration having been in some cases copied from designs after Raffaelle.†

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* An admirable work on Majolica and allied wares has been published for the Science and Art Department. It is entitled "A Descriptive Catalogue of the Maiolica, Hispano-Moresco, Persian, Damascus and Rhodian wares in the South Kensington Museum; with Historical Notices, Marks, and Monograms. By C. Drury E. Fortnum, F.S.A.," 1873, pp. 698.

The process of manufacturing Majolica ware has been described by Passeri, who wrote in the middle of the last century.‡ After the body or paste had been fired, it was coated with a white clay or earth and a composition of oxide of lead and oxide of tin, the proportion of tin being increased as the enamel was required to be whiter and harder. This manufacture was in the most flourishing state from about 1540 to 1560, and declined greatly in importance after 1574. Duke Guidobaldo II. of Urbino greatly encouraged its manufacture, giving to his works designs by Raffaelle and his pupils. The towns of Urbino, Gubbio, Pesaro, Castel Durante, and Faenza were the most celebrated for their production of this ware, but the manufacture was extended to other places in Italy. Some of the early ware known as *Mezza Majolica* is not glazed with tin, but is formed of a coarse body which has been coated with thin white slip, on which the painting was executed and afterwards covered with a lead-glaze. Such ware is often decorated with colours which present peculiar iridescent and metallic lustres. It appears indeed that the term *Majolica* was originally restricted to ware having such lustres applied to a tin-glazed surface, and even some modern authorities have advocated the limitation of the term to its original use. Among the early Majolica lustres the famous ruby has been considered peculiar to one artist Maestro Giorgio, of Gubbio; and although it appears that he was not the inventor of this glaze, he nevertheless so appropriated it that many Majolica painters are believed to have sent their productions to M. Giorgio in order that he might enrich them with the celebrated lustre.§ According to Brongniart, there is no colour on the Majolica ware due to any preparation of gold.‖

C. 90. Circular PLATEAU, or *Bacile*, of Mezza Majolica ware. Diameter, 15½ inches. Centre grounded in white and painted in blue with female bust-portrait in profile, enriched with yellow metallic lustre washed over the costume and head-dress; rayed border in blue and white with yellow lustre; reverse coated with coarse yellowish-brown glaze.

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* "Catalogue of the Soulages Collection," by J. C. Robinson, F.S.A. 1857, p. 52.

† It is probable that Raffaelle himself neither painted on Majolica ware nor furnished designs for its decoration. A letter has however been attributed to Raffaelle, in which the Duchess of Urbino is informed that the designs are ready which she had desired for her sideboard. It is certain that the Raffaelle who wrote this letter could not have been the great master, inasmuch as the latter had been dead long before the period to which the letter may be referred (Marryat's History of Pottery and Porcelain," 3rd ed., 1868, p. 35.) Some of the designs of Majolica ware are considered to have been taken from the engravings of Raffaelle's works by Marco Antonio.

‡ "Istoria della Pitture in Majolica fatte in Pesaro e nel luoghi circonvicini," a work first printed in Venice in 1752, and reprinted at Bologna in 1775. Another edition, edited by Ignazio Montanari, appeared in 1833. All these are exceedingly scarce. A translation in French, with an appendix by the translator, M. Delange, was published in Paris, December 1853.

§ "Catalogue of the Soulages Collection," by J. C. Robinson, F.S.A., p. 4.

‖ The gold purple, or "purple precipitate of Cassius," was not known until 1585.

It is believed that specimens decorated with these lustres were made only at three localities — Pesaro, Gubbio, and Deruta. Pieces of Majolica ware intended as lovers' presents were often painted with portraits and appropriate inscriptions, and are known as "Amatorii Majolica." This specimen although of coarse body, and called Mezza Majolica, appears to be coated with a tin-enamel.

C. 91. PLATE in Mezza Majolica ware. Diameter, 10½ inches. Centre with large floriated initial E, outlined in blue, painted with brown iridescent or *madreperla* lustre, and enriched with crimson or ruby lustre. Circa 1510–1520.

This piece was probably decorated at Gubbio, where Maestro Giorgio is believed to have monopolized the use of the ruby lustre. These lustred pieces were the true old Majolica; the term, says Mr. Fortnum, "was originally applied only to wares "having the lustre enrichment; and it is "probable that this distinctive appellation "was more or less in use until the decline "of the manufacture." "The method of "producing these metallic effects may "here be briefly repeated from the de-"scription in the supplement to Piccol-"passo's work. He there states the ingre-"dients of the pigments as communicated "to him by Maestro Vincenzio of Gubbio, "and explains the method of building the "furnace in which the pieces to be lustred "after baking are exposed to the action of "hot smoke, produced by the burning of "faggots of broom and brushwood. This "smoke, being carbon in a highly-divided "state, coming into contact with these "pigments on the heated wares, reduces "the metallic salts, leaving a thin surface "of the metals, which being of a mixed "nature and blended with other ingre-"dients, produce those varied and beau-"tiful tints."*

C. 92. PLATEAU in Majolica ware of the best period. Diameter, 15¼ inches. Painted in colours with design of C. Mutius Scævola burning his right hand before King Porsenna. Reverse inscribed in blue "G. V. V. D. *Munus F. An-"drea Volaterrano. Mutio ch' la "sua destra crante cocie.*"

This *bacile istoriato*, which is a good example of the best style of Majolica ware and is useful as showing the colours employed, was made at Pesaro in the duchy of Urbino, and bears on the rim the arms of the Duke Guid' Ubaldo of Urbino. The initials on the back are those of "Guido Ubaldo Urbini Dux," and the inscription may be rendered. "Presented to Frate Andrea of Volterra," the rest being merely descriptive of the scene depicted on the front. Collectors are familiar with other pieces of this service, which, it is believed, was made in 1545 at the *botega* of Lanfranco in Pesaro.

C. 93. PLATEAU in Majolica ware of the best period. Diameter, 10 inches. Painted in colours with group of astrologers, and youth in costume of the period playing an organ while an attendant blows the bellows. Reverse inscribed in blue, "ASTROL OGIA, 1545."

C. 94. PLATE in Majolica ware. Diameter, 8¾ inches. Design in colours, with three shields of arms on the rim. Reverse with scale pattern in orange on yellow ground, the white centre inscribed in blue, "MDXX XIII · F· ATHAN "ASIVS· B· M."

Similar specimens have been attributed to Baldasara Manara, of Faenza, to whom the initials B. M. probably refer, while the F. may stand for Faenza. This piece is useful, not only as illustrating the colours employed, but also as showing by a finger-mark that the stanniferous ground and colours upon it were in a thick pasty state before firing. By a careful inspection of the three preceding specimens, it will be observed that the only colours employed are blue, yellow, light brown, and bluish black, with their mixtures.

C. 95. PLATE in Majolica ware. Diameter, 9¼ inches. Design in colours, emblematical of the subjection of science to love. Reverse inscribed, "*Amor crudele con sue uoglie prave fecie Aristotil portar freno e sella*, 1547."

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* Fortnum's "Descriptive Catalogue," 1873, pp. 180, 181.

It is notable that the blue colour of part of this inscription is brought out only where the glaze passes over the writing.

C. 96. PLATE in Majolica ware manufactured at Fabriano. Diameter, 10½ inches. Design in dull-green camaieu, with touches of yellow introduced in the sky. Subject: in central concavity a cupid; on the broad border the Rape of Proserpine. Reverse ornamented with scrolls painted in blue on white enamelled ground, and bearing artist's monogram. Mr. Fortnum, who has copied this monogram in his catalogue (p. 456), has pointed out that it corresponds with the mark on a Majolica plate, which also bears an inscription with the place and date of manufacture; *Fabriano*, 1527. Specimens of this manufacture are extremely rare. This inscribed piece was sold in May 1871 to M. Basilewski, of Paris for 114*l*.

C. 97. PLATE in coarse Majolica ware. Diameter, 8¾ inches. Painted in brown monochrome on blue ground, with profile portrait in centre surrounded by musical trophies, &c. Circa 1530.

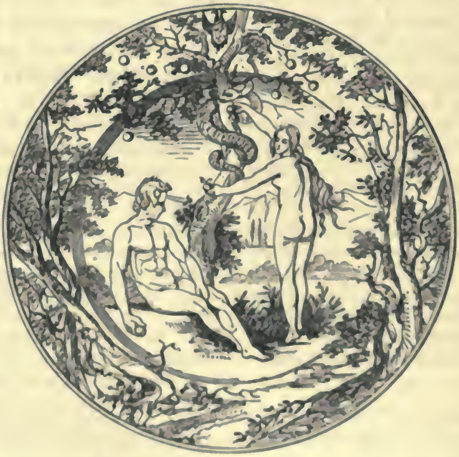
C. 98. PLATE in Majolica ware of later date. Diameter, 12¾ inches. Design in colours, Eve offering an apple to Adam (fig. 26). Siena manufacture.

C. 99. PLATE in Majolica ware of late date. Diameter, 10 inches. Design in colours, a landscape with large arch in foreground. Mark on reverse, in brown, the monogram AF beneath two palm branches saltire, having between them a Maltese cross surmounted by a coronet. Venetian manufacture.

C. 100. DISH, 12 inches in diameter, with wide border perforated with fleur-de-lis and stars. Body coarse brown, with thick coating of opaque white stanniferous enamel.

Presented by Sir T. W. Holbourne.

Fig. 26.



Palissy Ware.—The celebrated ware made by Palissy was coated with a stanniferous glaze, the production of which cost him much labour, and upon this glaze coloured enamels were employed. Bernard Palissy was born of poor parents at La Chapelle Biron, in Perigord, about the year 1510. He was a most enterprising man, and while working at glass-painting and land-surveying for a subsistence, he studied geology, chemistry, and other branches of science. Having seen a beautiful cup of enamelled pottery, he laboured to discover the secret of its enamel. For sixteen years he vainly attempted to imitate it, spending in these attempts all his money, and involving himself in much misery. Success, however, finally crowned his efforts. He died in confinement in the Bastile about the year 1589.

Palissy's "rustic ware," which has become extremely famous, is remarkable for its decorations in relief, truthfully modelled and coloured from natural objects in the neighbourhood of Paris, such as reptiles, fishes, leaves, and even the fossil shells of the district. In addition, however, to this characteristic relief ware, he produced a great variety of different kinds of pottery.

C. 101. Oval Dish, in the style of Palissy's rustic ware. In the centre a fish modelled in high relief and coloured from nature, surrounded by fern fronds and aquatic plants, with a lizard, frog, snake, insects, and freshwater shells (*planorbis*, *paludina*, &c.), all coloured in enamels from nature.

C. 102. Square Tile from the Château d'Écouen. Enamelled surface, painted in blue, yellow, and orange, with bust of winged female forming part of a general design.

Presented by A. W. Franks, Esq., M.A., F.R.S.

The château of the Constable de Montmorency at Écouen, near Paris, was decorated with tiles many of which were painted by Bernard Palissy about the middle of the sixteenth century.

Delft Ware.—The famous Delft ware was coated with a stanniferous glaze or enamel, upon which the designs were executed chiefly in blue. Only a single specimen of this ware is here exhibited, in order to show the character of the glaze, but a collection of interesting examples will be found in the lower part of Wall Cases XXXV. to XLIV. From Holland the manufacture of Delft ware was introduced into this country, and specimens made at Lambeth, Liverpool, and other English localities are described under their respective places of manufacture. The Liverpool punch-bowl, No. S. 10 (p. 246), is interesting as bearing a motto alluding to the use of tin in the enamel.

C. 103. Delft Dish, probably an early specimen. Enamel of the characteristic greenish tint, painted in oriental style, with conventional foliage in variously coloured enamels upon the fundamental stanniferous glaze. Marked on the back in red in imitation of Chinese or Japanese marks.

It is remarkable that the bodies or pastes employed by Luca della Robbia, and by the manufacturers of the Majolica and Delft ware, are so nearly alike in composition, as to suggest a suspicion that a knowledge of their constitution may have been derived one from another. The Palissy ware is, however, differently composed, containing less calcareous matter than the others, and consisting almost wholly of silica and alumina. The following analyses of these several wares, made at Sèvres, are given by M. Brongniart :—

	Luca della Robbia.	Majolica.	Delft.	Palissy.
Silica - - -	49·65	48·00	49·07	67·50
Alumina - -	15·50	17·50	16·19	28·51
Lime - - -	22·40	20·12	18·01	1·52
Magnesia - -	0·17	1·17	0·82	—
Oxide of iron - -	3·70	3·75	2·82	2·05
Carbonic acid and loss	8·58	9·46	13·09	0·42*

Felspathic Glazes.

A knowledge of felspathic glazes, or those in which felspar forms a more or less prominent ingredient, seems to have been introduced into Europe with that of the composition of the Chinese porcelain pastes or bodies; so that as European imitations of the latter extended, the use of felspathic glazes also spread. These glazes usually require a far greater heat for their fusion than is required for those which are employed on ordinary pottery.

The Chinese glazes are variously composed, but consist chiefly of petrosilex (a compact felspathic rock), the fusibility of which is increased by the addition of lime, fern-ashes, and powdered gypsum (*che-kao*). These materials, finely powdered and carefully mixed, are suspended in water, and the mixture applied directly to the ware in its raw or unbaked state, the method being, therefore, essentially different from that followed in European manufactories, where the porcelain is never glazed until it has been brought to the state of "biscuit" by firing.[†]

Although, doubtless, many modifications may have been made in the glazes employed at Meissen (Dresden) since the first European porcelain works were carried on at that place at the commencement of the eighteenth century, yet the glazes still used there are interesting, as probably pointing in some measure to the composition of those early employed. The following has been given as the Meissen glaze of 1836, and it will be noticed that it is destitute of felspar :—

Calcined quartz - - - - -	37·0
Kaolin of Seilitz, calcined - - - -	37·0
Compact limestone of Neuntmansdorf, near Pirna -	17·5
Pieces of porcelain - - - - -	8·5
	100·

The glaze of the Berlin porcelain had, in 1836, the following composition :—

Kaolin of Morl - - - - -	31
Quartz sand - - - - - -	43
Gypsum - - - - - -	14
Pieces of porcelain - - - - -	12
	100

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[*] This quantity represents loss, and not carbonic acid.

[†] For the composition of Chinese glazes, see M. Stanislas Julien's translation from the Chinese, entitled, "Histoire et Fabrication de la Porcelaine Chinoise," Paris, 1856, p. 130.

Prior to the year 1780, the glaze employed at Sèvres was compounded as follows:—

Biscuit	48
Sand from Fontainebleau	40
Chalk from Bougival	12
	100

Since that date, however, the use of an artificially-prepared glaze has been abandoned, and recourse had almost exclusively to the pegmatite of St. Yrieix, near Limoges, a rock composed of felspar and quartz. According to the analyses of M. Salvétat, this rock has the following chemical composition:—

Silica	74·3
Alumina	18·3
Potash	6·5
Lime	0·4
Magnesia	0·2
Loss	0·3
	100·

For the glazes of English porcelain Cornish china-stone usually forms an important ingredient, a frit being not unfrequently made with this rock, associated with borax, flint, lime, or other substances. Formerly lead was more employed in such glazes than it is at present.

The following formula is given by Drs. Ronalds and Richardson,* as producing a porcelain glaze considered excellent in 1848:—

	Parts.
Cornish china-stone	25
Soda	6
Borax	3
Nitre	1

Fritted in gloss-oven, and then the following mixture used:—

	Per cent.
Frit	26
China-stone	26
White lead	3
Flint	7
Carbonate of lime	7
Oxide of tin	3

C. 104. Thick Porcelain Tile, having one face covered with felspathic glaze: from the Porcelain Tower, Nanking. Date 1411. Obtained, in 1842, from the high priest at the tower.

Presented by His Grace the Duke of Northumberland.

C. 105. Vase, in Chinese porcelain, coated with a fine felspathic glaze, and ornamented with pomegranates painted in red and blue under the glaze. Marked in blue with the stamp of the Emperor Ch'êng Hwa, Ming Dynasty, A.D. 1465 to 1488.

From the Marryat Collection.

C. 106. Large Vase, or jar, in Chinese porcelain, with dragons modelled in relief upon the neck. Glaze felspathic, with Chinese scenes elaborately enamelled in colours upon the glaze.

C. 107. Large Vase, or jar, in Chinese porcelain, covered with a red felspathic glaze, containing copper in the form of a silicate of the suboxide (cuprous silicate), probably reduced from the blue double silicate of protoxide of copper and of an alkali (alkaline cupric silicate), as is seen to be the case with the blue enamelled Babylonian brick, No. C. 26.

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* See the additions to their translation of Knapp's "Chemical Technology," vol. ii., p. 466.

C. 108. LARGE VASE, or jar, in Chinese porcelain, covered by a similar glaze to that on the preceding piece, but mottled purple and red, the blue double silicate having in this case been only partially reduced to the state of red silicate of suboxide of copper.

It is believed that the processes by which these effects are produced have not as yet been successfully imitated in Europe.

C. 109. VASE, 6½ inches high ; in Chinese porcelain, with mottled blue and green glaze.

Coll. Marryat.

C. 110. ANCIENT VASE, or jar, of Chinese porcelain, partially coated with a "crazed" glaze, illustrative of the mode of producing the ware termed *cracklin china.*

The white porcelain paste or body is covered partly with a brown felspathic enamel and partly with a white *cracklin* glaze, the latter having been artifically produced by employing a thick opaque enamel which upon firing split in various directions or *crazed,* while the brown enamel spread over the other portion upon which a design has been raised in relief and not crazed. Part of this raised design exhibits a meander ornament similar to that known as the Greek fret.

Presented by Sir Harry Parkes, K.C.B.

C. 111. FRAGMENT of CRACKLIN CHINA, showing the character of the paste and the thickness of the felspathic glaze.

Presented by Dr. Lockhart.

C. 112. to C. 114. THREE SMALL BOTTLES in Chinese porcelain, similar to those found in many Egyptian tombs, and at Nineveh.

Presented by Dr. Lockhart.

The discovery of such bottles in Egyptian tombs of great antiquity has led to the inference that porcelain must have been manufactured in China as early as the eighteenth century B.C. It has, however, been shown by M. Stanislas Julien that the Chinese characters upon some of these bottles belong to a style of writing which was not invented until B.C. 48–33, while Mr. Medhurst has found that the inscriptions upon two of them are quotations from a Chinese poet of the eighth century of our era. Indeed similar vessels may be purchased in China at the present day.

It is believed that the manufacture of porcelain in China was not undertaken until between B.C. 185 and A.D. 87. (*See supra*, p. 9.)

C. 115. CUP in Chinese porcelain, with perforated diamond pattern filled in with translucent glaze.

Presented by Dr. Lockhart.

C. 116. CUP and SAUCER in Chinese porcelain, termed from its thinness and lightness "*egg-shell china.*" Felspathic glaze, with figure-subject in black and flesh-tinted enamels.

C. 117. SAUCER in Japanese "egg-shell porcelain," with felspathic glaze richly enamelled in blue and gilt.

Presented by C. Tookey Esq., F.C.S.

C. 118. CUP and SAUCER in thin white French porcelain, with felspathic glaze ; from the Imperial Manufactory at Sèvres.

C. 119. CANDLESTICK in English porcelain, painted with flowers in blue, and touched with gold ; marked in red "Coalport Improved Feltspar (*sic*) Porcelain ; patronized by the Society of Arts ; the Gold Medal awarded May 30, 1820; J. Rose and Co."

The Society of Arts in the session 1819–20 offered a premium to the person "who shall discover to the society the cheapest, safest, most durable, and most easily fusible composition fit for the purpose of glazing earthenware, without any preparation of lead, arsenic, or other pernicious ingredients, and superior to any hitherto in use." In the following session the Isis Gold Medal was awarded to Mr. John Rose, of Coalport, Shropshire for an improved glaze for porcelain, having the following composition :—

	Parts.
Felspar from Welshpool, Montgomeryshire	27
Borax	18
Sand from Lynn, Norfolk	4

	Parts.
Cornish china-clay	3
Nitre	3
Soda	3

This mixture was fritted, and three parts of calcined borax then added.* (*See also* No. O. 39, Coalport porcelain, p. 229.)

Salt Glaze.

Salt glaze, or one in which common salt by its volatilization amid the biscuit ware produces the glaze, was first employed by Messrs. Palmer and Bagnall, at their potteries at Burslem, in Staffordshire, in the year 1680.†

The glazing is effected towards the end of the firing by throwing common salt (chloride of sodium) into the kiln containing the ware, through apertures made for the purpose. At the high temperature of the kiln the salt is volatilized, and its vapour thus surrounds the various vessels which are being baked. The vapour of sodic chloride, the silica in the paste of the ware, and the watery vapour which is always present, react upon each other, the hydrogen of the water forming, with the chlorine of the salt, hydrochloric acid, which passes off in the state of vapour, while the oxygen of the steam uniting with the sodium produces soda, which forms a silicate on the surface of the ware, so that the biscuit becomes coated with a thin layer of sodic silicate, or soda-glass. As salt glaze requires for its production a very high temperature, and is not considered so generally applicable as other glazes, it is employed at present only for special purposes. For vessels required to contain acids and other corrosive liquids, salt glaze is still employed; and it is also largely used for drain and chimney pipes, and for the stone-ware insulators of the wires of electric telegraphs.

C. 120. **Jug** in early Staffordshire salt-glazed ware, with embossed pecten pattern.

A large collection of similar ware, obtained for the most part from the collection of the late Enoch Wood, will be found among the Staffordshire series (*See* p. 116.)

C. 121. **Mug** in *grès cérame*, ornamented in relief with figure of Gambrinus in centre. Modern German.

C. 122. **Small Bath** in Vauxhall stone-ware, enamelled inside.

Smearing.

Smearing, as it is termed, is produced by the evaporation of certain glazes in closed saggers. Thus in the earthenware kilns, where common glazes are employed upon the ware, if the saggers be closed, and the heat be sufficient, other biscuit ware placed in the saggers may be slightly covered with a coating of glaze, or be smeared, by the evaporation from the glazes. Certain compositions may also be placed in the bottom of the closed saggers, and by their evaporation the ware in them may be smeared.

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* Transactions of the Society of Arts, vol. xxxviii., 1821, p. 42.

† See account of the Staffordshire potteries, p. 102, where the reputed accidental discovery of salt glaze is noticed.

Various compositions are employed, and common salt is sometimes added; for example, the following composition may be used:—

Common salt	67
Potash	38
Oxide of lead	5
	100

Colours.

[See specimens in Table Case 3; east side.]

In the preparation of the materials used for painting on pottery and porcelain the colouring agents are usually mixed with some vitrifiable substance, or flux, which on fusion causes the colours to adhere to the surface, and at the same time serves as a protection by covering them with an impervious glaze. Since organic and volatile colours would suffer more or less alteration upon exposure to the temperature necessary for the fusion of the flux, their use is obviously excluded, and the range of colours available for ceramic decoration is therefore confined to certain metallic oxides and salts. In some cases the colouring agents remain mechanically suspended in the flux, which thus serves merely as a vehicle; while in other cases the oxides form fusible silicates or borates by entering into chemical combination with certain constituents of the flux with which they are mixed, or of the paste to which they may be applied; examples of mechanical suspension of colours are afforded by the greens from oxide of chromium and by the reds and browns from peroxide of iron; while examples of chemical combination are furnished by cobalt and copper colours, the silicates, and not the oxides, of these metals being the true colouring agents.

Obviously the most durable mode of decoration would be that of applying the colour to the ware when in the state of biscuit, since it would then be protected by the coating of glaze subsequently laid over the surface. This mode of application is, however, practicable only when the colours are capable of resisting, unaltered, the temperature to which the ware is exposed during the firing of the glaze. Such is the case, for example, with the cobalt blues and chrome greens. But such colours are exceptional, for in most cases the tint would be seriously altered, if not entirely dispelled, by the high temperature requisite for fusing the porcelain glaze, and such colours can therefore be used only for painting upon the glazed surface; thus some of the yellows from preparations of antimony are rendered almost colourless by a high temperature. Hence the distinction between colours employed *under* the glaze, and those which can be used only *over* the glaze.

Among the metallic oxides which are available in ceramic decoration the following are the most important:—Oxide of *cobalt*, prepared generally from ores containing cobalt and nickel—sulphides, arsenides, and arsenio-sulphides—and extensively used in the preparation of blues, grays, and blacks, these colours being capable of withstanding a high temperature, and therefore of being used under the glaze; oxide of *chromium*, generally obtained by the decomposition either of chromate or bichromate of potash, or of chromate of mercury, and used for producing a very stable green colour which may be worked under the glaze; peroxide of *iron*, or ferric oxide, prepared by the calcination of ferrous sulphate, or green copperas, and used for reds, browns, and violets, the tints varying with the temperature at which the calcination is effected, and being capable of modification by association with other oxides; oxide of *antimony*, giving various shades of yellow, and generally mixed with oxide of zinc or of iron, but sometimes used in the form of antimoniate of lead or "Naples yellow;" oxides of *copper*, forming silicates which are red with the suboxide (cuprous salts), and blue with the protoxide (cupric salts), when associated with an alkaline silicate; peroxide of *manganese* occurring abundantly in a native state as pyrolusite, and used for violets and blacks; sesquioxide of *uranium*, a rare compound, occasionally employed for producing an orange colour; and oxide of *iridium*, an expensive preparation, highly valued for producing a black colour of extraordinary intensity. Oxide of *zinc*, although incapable by itself of imparting colour to any vitreous substance, is nevertheless of great importance by its power of modifying and improving other colours with which it may be associated, such as the cobalt blues. The tint may often also be affected by the character of the flux employed. Of the materials used for fluxing, the chief are felspar, borax, nitre, litharge, alkaline carbonates, and preparations of bismuth. It is necessary that the vitreous substances formed by these fluxes, and coloured by the metallic oxides, should expand and contract by alterations of temperature, in the same degree as the body or glaze to which they are applied, since the colours would otherwise become cracked or "crazed."

D. 1. COBALT BLUE prepared for use under the glaze.

D. 2. SLAB, with ornamental border printed with D. 1; one half left in the state of biscuit and the other half glazed to show the development of colour consequent upon firing the glaze.

D. 3. MINTON'S GLAZE, used in glazing specimens in this series.

D. 4. GOOD PRINTING BLUE for use under the glaze.

D. 5. SLAB, printed with D. 4.; one half left in the state of biscuit and the other half glazed showing the difference in tint between the two portions.

D. 6. SLAB, printed with D. 4, the colour having flowed in the sagger.

D. 7. PREPARATION used for flowing the blue.

D. 8. MATT BLUE, for use under the glaze.

D. 9. SLAB, with border printed with D. 8; one half glazed.

D. 10. CHROME GREEN, for use under the glaze.

D. 11. SLAB, printed with D. 10; one half glazed.

D. 12. BLACK, for use under the glaze.

D. 13. SLAB, with border printed with D. 12, one half glazed.

D. 14. PURPLE, for use under the glaze.

D. 15. SLAB, with border printed with D. 14; one half glazed.

D. 16. PINK, for use under the glaze.

D. 17. ENAMEL BLUE, prepared for printing upon the glaze.

D. 18. GLAZED SLAB, with ornamental border printed with D. 17.

D. 19. CHROME GREEN, prepared for use upon the glaze.

D. 20. Glazed Slab, printed with D. 19.

D. 21. Chromate of Lead, prepared for use upon the glaze.

D. 22. Glazed Slab, printed with E. 21.

D. 23. Purple of Cassius, a precipitate formed by adding a solution of protochloride and perchloride of tin (stannous and stannic chlorides) to a solution of terchloride of gold (auric chloride), or by digesting metallic tin in a solution of gold terchloride.

Purple of Cassius forms the base of all the pink and purple colours used for painting over the glaze, but the pinks and purples used under the glaze (D. 14 and D. 16) generally contain the oxides of chromium and tin.

D. 24. Purple, prepared for use upon the glaze.

D. 25. Glazed Slab, printed with D. 24.

D. 26. Rose Colour, prepared for use upon the glaze.

D. 27. Glazed Slab, printed with D. 26.

D. 1 to D. 27 prepared and presented by Messrs. Minton and Co., Stoke-upon-Trent.

D. 28 to D. 55. A series of 28 small Porcelain Slabs, exhibiting the following Colours :—

Prepared and presented by Messrs. Minton and Co.

D. 28. Gros Bleu, a cobalt blue upon China glaze.

D. 29. Gros Bleu of lighter tint.

D. 30. Blue, from oxide of cobalt modified by oxide of zinc.

D. 31. Cobalt Blue of lighter tint.

D. 32. Turquoise Blue, from oxide of copper.

D. 33. Bluish Green, from oxide of copper.

D. 34 to D. 37. Green, of different tints, from oxide of chromium with oxide of cobalt.

D. 38. Yellow, from oxide of antimony with oxide of zinc.

D. 39. Yellow, of darker tint, from oxide of antimony with oxide of lead or of iron.

D. 40. Orange, from sesquioxide of uranium.

D. 41. Rose Colour, from purple of Cassius.

D. 42 to D. 43. Purple, of different tints, from purple of Cassius.

D. 44. Red, from purple of Cassius.

D. 45 to D. 47. Red, of different tints, from chromate of lead.

D. 48. Red, from peroxide of iron (ferric oxide), obtained by calcination of the sulphate (ferrous sulphate).

D. 49. Brown, from peroxide of iron.

D. 50 to D. 53. Brown and Purple, of different tints, from peroxide of iron modified by oxide of zinc.

D. 54. Black, from sesquioxide of iridium.

D. 55. Black, from a mixture of several oxides, chiefly those of iron, cobalt, chromium, and manganese.

D. 56 to D. 89.—Series of 34 specimens of colours used in painting on pottery and porcelain, showing each colour in its raw state, accompanied by a specimen-slab exhibiting the same colour after firing.

Prepared and presented by Messrs. Emery and Co., Cobridge, Staffordshire.

D. 56. Lavender.

D. 57. Mauve, No. 7.

D. 58. Mauve, No. 8.

D. 59. Mauve, No. 9.

D. 60. Unique.

D. 61. Matt Blue, No. 17.

D. 62. Celeste, No. 3.

D. 63. Florentine Green.

D. 64. Chrome Green, No. 10.

D. 65. Chrome Green, No. 14.

D. 66. Gordon Green.

D. 67. Gordon Green, No. 13.

D. 68. Stone Drab.

D. 69. Kingston Drab.

D. 70. Queen's Drab, No. 1.

D. 71. Queen's Drab, No. 18.

D. 72. Buff.

D. 73. Peach Buff.

D. 74. Primrose.

D. 75. Ivory, No. 3.

D, 76. Golden Fawn.

D. 77. Golden Fawn, darker tint.

D. 78. Salmon, No. 13.

D. 79. Peach Blossom.

D. 80. Hard-kiln Pink.

D. 81 Pink, No. 6.

D. 82. Pink, No. 20.

D. 83. Magenta.

D. 84. Coral Red, No. 1.

D. 85. Coral Red, No. 2.

D. 86. Best Red.

D. 87. Ruby.

D. 88. Marone.

D. 89. Marone, large slab.

D. 90 to D. 103. Fourteen Specimen Slabs, exhibiting the following Majolica Enamels and Glazes:—

Prepared and presented by Messrs. Maw and Co., Benthall Works, Broseley, Shropshire.

D. 90. Lilacs, seven tints.

D. 91. Purples, seven tints.

D. 92. Opaque Blues, seven tints.

D. 93. Fawn Lavenders, six tints.

D. 94. Opaque Yellows and Orange, six tints.

D. 95. Warm Opaque Greens, six tints.

D. 96. Intermediate Opaque Greens, six tints.

D. 97. Cold Opaque Greens, six tints.

D. 98. Warm Grays, six tints.

D. 99. Neutral Grays, six tints.

D. 100. Cold Grays, six tints.

D. 101. Transparent Greens, four tints.

D. 102. Transparent Browns, four tints.

D. 103. Transparent Ambers, five tints.

D. 104 to D. 132.—Twenty-nine Cylindrical Vessels coloured in horizontal bands to exhibit different tints of the following colours:—

D. 104. Black, from oxides of iron and cobalt.

D. 105 to 110. Brown, various tints, from peroxide of iron.

D. 111 to 114. Red and Pink, various tints, from purple of cassius.

D. 115. Red, from chromate of lead.

D. 116 to 118. Yellows, various tints, from oxide of antimony.

D. 119 to 123. Green, various tints, from oxide of chromium.

D. 124. Neutral Green, from oxide of nickel.

D. 125. Pale Blue, from oxide of copper.

D. 126. Turquoise Blue, from oxide of copper.

D. 127. Green, from oxide of copper.

D. 128 to 132. Blue, various tints, from oxide of cobalt.

D. 133. Specimen Slab, divided into 20 compartments, showing the principal colours employed at the National Porcelain Manufactory at Sèvres.

D. 134 to D. 148. Fifteen TRIAL PLATES, with samples of various colours employed at Sèvres. These plates are submitted to the same temperature as the piece about to be painted in order to judge of the quality of the colour employed.

D. 149. SMALL PLAQUE, from Sèvres, coloured green (*grand feu*).

D. 150. SMALL PLAQUE, from Sèvres, painted in blue (*demi-grand feu*) and ornamented in gold.

D. 151. SMALL PLAQUE, from Sèvres, rose coloured (*feu de moufle ordinaire*).

D. 133 *to D.* 151 *presented by the Director of the National Porcelain Manufactory at Sèvres.*

D. 152 to D. 163. Twelve PORCELAIN TABLETS, each divided into three compartments, exhibiting 36 of the principal colours employed at the Royal Porcelain Manufactory at Berlin.

Presented by the late Professor Magnus.

D. 164. BOTTLE, with preparation used for GILDING on porcelain and pottery.

An amalgam of gold and mercury is mixed with a flux, and the powder worked up with turpentine and oil, so that it may be applied to the ware by means of a camel-hair pencil.

D. 165. SMALL SLAB, with specimen of gilding on blue ground.

The design having been traced with the gold preparation, the piece is placed in a muffle and submitted to firing. The gold left on the surface by the evaporation of the vehicle is at first " dead," but readily assumes its metallic lustre by burnishing with a piece of agate or hæmatite.

D. 166. SMALL SLAB, with specimen of raised gold.

The rich effect of raised gold is economically obtained by first tracing the design with thick yellow enamel, the surface of which is then gilt.

D. 167. SMALL SLAB, with specimen of gilding with an alloy of gold and silver, the effect of the silver being to lighten the colour.

D. 164 *to D.* 167 *presented by Messrs. Minton and Co.*

Lustres.

[See specimens in Wall Cases XL. and XLI. ; lower compartment, top shelf.]

Common pottery is often decorated with a brilliant metallic lustre, which in some cases results from an extremely thin film of the metal upon the glazed surface. As the metals thus employed must not be susceptible of alteration by the agents to which pottery is commonly exposed, recourse is usually had to the precious metals, chiefly gold and platinum, but the quantity used is so extremely small that the commonest forms of earthenware may be coated with these lustres. Different processes are followed in the preparation of lustres, but they all consist in reducing the metal from a state of combination and depositing it in such a form that it exhibits its characteristic lustre *without burnishing.* The gold is dissolved in aqua regia, tin is frequently added, and the preparation mixed generally with balsam of sulphur and oil of turpentine. This preparation having been applied to the surface by means of a brush, the piece is carefully fired and the reduced metal deposited in a state of extreme tenuity ; indeed, the layer is often transparent, and hence the colour of the lustre may be modified by that of the subjacent surface.

It has been supposed that the lustres characteristic of some of the old Spanish ware are due to a very thin layer of some preparation of copper and not to the metal itself. A brilliant lustre similar to that on the Spanish ware was used at Brislington, near Bristol. (*See* p. 211.)

The fine lustres on some of the old Majolica ware are exhibited on specimens C. 90 and C. 91, and the method by which they were obtained is noticed on p. 47.

D. 168. Plate of Hispano-Arabic ware; coarse body with glazed surface profusely covered with leaves, and bird in centre, in a brilliant coppery lustre.

D. 169. Fragment of a large bowl in similar ware; coarse body with cream-coloured glaze, ornamented with birds and conventional foliage traced in a brilliant lustre redder than that on the last piece, and partly iridescent.

D. 170. Small Vase coated with gold lustre.

Prepared and presented by Messrs. Minton and Co.

D. 170. Two-handled Vase coated with gold lustre, and painted with flowers.

D. 171. Goblet coated with gold lustre, and ornamented with raised flowers tinted red on a band of orange-coloured ground.

D. 172. Jug, with gold lustre round the neck; the body painted blue and ornamented in relief with coloured figures including the Hanoverian badge.

Presented by Mrs. Bury Palliser.

D. 173. Basket coated with lustre of a deep bronze colour, ornamented with frieze of armed figures.

D. 174. Card Basket coated with an iridescent bronzy lustre.

D. 175. Plate completely coated with platinum lustre.

Presented by the late R. Warington, Esq., F.C.S.

D. 176. Cup and Saucer, with leaves in platinum lustre, gilt edged, and associated with coloured flowers.

D. 177 to D. 182. Six porcelain Cups and Saucers, of various colours exhibiting nacreous lustre, made by Messrs. Gillet and Brianchon, of Paris.

From the International Exhibition of 1862.

The peculiar pearly lustre on the surface of this porcelain is produced by the use of nitrate of bismuth as a flux. This is mixed with resin and essence of lavender as a vehicle, and associated with certain metallic oxides as colouring agents. A similar lustre has been used, within the last few years, on Worcester and Belleek china. (*See* p. 271.)

Ancient British Pottery.

In describing the various kinds of pottery found in this country, it is necessary to allude in the first place to those primitive wares, which, being of pre-Roman age, are generally known as Ancient British or Celtic pottery. Much of this early ware is found under conditions which show that it was contemporaneous with the use of stone and bronze implements in these islands; but it is probable that similar coarse pottery continued to be made down to the period of the Roman conquest, and even later. The paste of this pre-Roman pottery consists of coarse unprepared clay, usually mixed with pebbles; and in most cases it has been but imperfectly baked. The vessels vary considerably in size and form; most of them were simply fashioned by hand, and are therefore as irregular in outline as they are rude in ornamentation. The larger vessels are commonly urn-shaped, with a wide mouth, narrow base, and overhanging rim. In decoration they exhibit great simplicity; the common ornaments having been produced by means of cords, bands, or thongs twisted round the vessel when yet moist; or consisting of zig-zag, chevron, or herring-bone patterns, either scratched in the paste with a sharp-pointed instrument, or impressed by means of a rude stamp. It was probably to some of these vessels that the Romans applied the term *bascaudæ* or baskets. Most of the samples of such ware which have come down to us appear to have been used for sepulchral rather than for domestic purposes. Indeed this early pottery is chiefly found in barrows or tumuli, where it is frequently associated with implements of stone and bronze, and beads of glass, amber, and jet. Mr. Bateman, who had great experience in opening burial mounds in Derbyshire, proposed to classify this pre-historic pottery in the four following groups:* cinerary or sepulchral urns, which are found either containing calcined human bones, or inverted over them; incense-cups, which are smaller vessels, of doubtful use; food vessels, supposed to have contained offerings of food to the departed; and, finally, drinking cups. Such a classification, however, is far from satisfactory, and our knowledge of the uses of many of these vessels is still very imperfect. There is at present but a single example of ancient British pottery in this collection. A very fine series, however, will be found in the British Museum.†

D* 1. CINERARY URN, 6½ inches high, with wide mouth, 6 inches in diameter; the body, of graceful but irregular outline, tapering to a base of 3 ins. diameter; coarse paste. made of clay, mixed with grains of quartz and flakes of mica; body ⅜ inch thick, of pale buff colour on the outside, and almost black within; ornamentation consisting of several irregular horizontal bands of vertical, diagonal, and cross-hatching, impressed with a stamp. Found probably in a tumulus, on the late Sir Roderick Murchison's ancestral estate at Tarradale, in Ross-shire, Scotland.

Presented by Kenneth R. Murchison, Esq., 1874.

This specimen of prehistoric pottery is at present placed with the Roman pottery in Pedestal Case, No. 2, on the west side of the Museum.

ROMAN POTTERY.

[See specimens in Pedestal Case No. 2; west side.]

Roman Red Lustrous Ware.

The use of this kind of pottery appears to have extended with the Roman empire, fragments having been discovered wherever the Roman people had settled after their conquests. The date of its manufacture probably extended from the first century B.C. to the fourth century of our era.

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* "Ten Years' Diggings in Celtic and Saxon Grave Hills." London, 1861.

† For further information on Celtic pottery reference may be made to Dr. Birch's "Ancient Pottery," Part V. London, 1873.

It seems to have been employed for domestic purposes, as earthenware and porcelain now are in this country. The paste of the ware is usually of a fine sealing-wax red colour and was well worked before being wrought into shape. Vessels of this ware are generally well manufactured, the plain pieces bearing the marks of having been turned on the lathe, while the pieces which are moulded outside are in like manner carefully finished inside. The red colour is derived from the presence of peroxide of iron (ferric oxide), which is supposed to have been purposely introduced into the paste by admixture of certain ochres with the levigated clay. The glaze is generally brilliant, unless it has been decomposed from having been subjected to unfavourable conditions when buried in the earth, and appears to have been formed of a silicate with an alkaline-earthy base, coloured by peroxide of iron. Dr. Birch suggests that a salt glaze may have been used. A piece of Roman red ware found at Châtelet, and analyzed at Sèvres, by M. Salvétat, presented the following composition:—

Silica	64·00
Alumina	17·77
Oxide of iron	10·23
Lime	4·86
Water	2·29
	99·15

The following analyses of two fragments of this ware found in London were made at the Museum of Practical Geology by Messrs. Philipps and Smith under the direction of Dr. Percy, F.R.S.:—

	I.	II.
Silica	54·45	60·67
Alumina	22·08	20·96
Peroxide of iron	7·31	5·95
Lime	9·76	6·77
Magnesia	1·67	1·22
Potash	3·22	Alkalies in small quantities.
Soda	1·76	
	100·25	95·57

Respecting this ware, M. Brongniart observes "that it was worked in "the most perfect manner, and with the aid of the greater part of the "processes and means now employed in the most perfect manufacture."* The moulding seems to have been so conducted that, with numerous stamps of different kinds, a great variety of patterns could be produced. These stamps appear to have been impressed upon a general mould, into which the moist paste was pressed, the mould being often formed of the same paste as the ware itself, and baked prior to use.† In consequence of shrinkage, after drying and firing, the finished piece of ware would be smaller than the baked mould. If the latter were turned inside, when in the state of paste and before receiving the impressions from the stamps, as probably it was, the marks of the turning on a lathe would be impressed on the outer surface of the piece of ware enclosed; and thus an explanation would be offered of the difficulty which is suggested in attempting to account for the way in which the marks from the lathe are sometimes singularly associated with the raised figures of the pattern. The moist paste of the ware inside, in the general mould, could readily be turned after it had been pressed properly against the latter, so that the fine work on the exterior need not have been handled after pressure into the general mould, and the finishing completed by the lathe inside and around the edges. Indeed, if the general mould were whole and employed as a sagger, the interior vessel in its state of paste, after drying and shrinking, might have been fired in it, thus permitting many moulded pieces to have been fired in the same kilns, moulds being like saggers, piled on each other, so as to permit the proper heat to circulate among the general collection of pieces to be fired.

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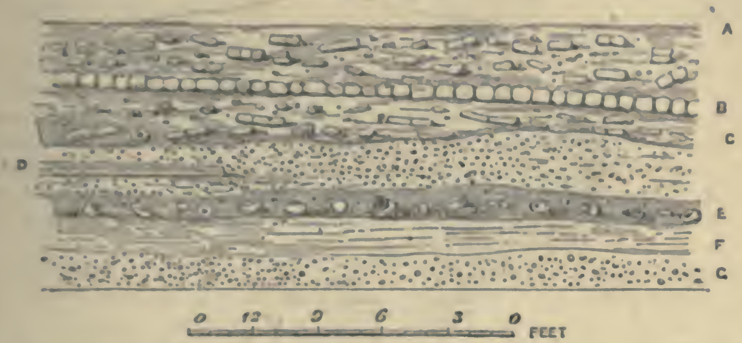
* "Traité des Arts Céramiques," tome i. p. 423.

† A mould for a Roman bowl will be found among the specimens from the Rhine (No. E. 241, p. 89). See also addenda, p. 312.

Hitherto it has been considered doubtful whether this red lustrous ware was manufactured in the British Islands, though its remains are sufficiently common, especially at Roman stations in the south and west of England. It appears to have been imported during the Roman occupation of these countries, and, judging from the mended specimens, often discovered, seems to have been of fair value at the time; much in the same way that Chinese porcelain was prized before porcelain was made in this country. The ware is not uncommonly known to antiquaries as "Samian," from Samos having been celebrated for its manufacture of a red pottery. The Samian potters were famous about B.C. 900; but it may be doubted if any vessels of their manufacture have ever been found at the Roman stations in England. This so-called Samian ware appears to have been manufactured extensively in Italy, Gaul, and Germany; a somewhat similar material known as "Aretine ware" was made at Aretium, the modern Arezzo, in Italy. Various instruments in bronze, copper, ivory, or bone, have been found where kilns for firing this ware have been discovered. Moulds also, and stamps for making them, have in like manner been obtained in certain localities where it was manufactured as at Rheinzabern, Lezouk, Arezzo, and elsewhere. Though all this ware does not exhibit the potter's marks, a large proportion of it is found to be carefully stamped with such marks. Sometimes the name is in the nominative followed by F. (*fecit*), as for example, MONTANS· F., showing that *Montanus* made it; in other cases the name is in the genitive succeeded by M. (*manu*), such as CRISPINI· M·, signifying that the object was the work of *Crispinus*; while the abbreviation O. or OF. or OFFI. (*officinâ*) points to the manufactory of some potter, or at some place named in the inscription. According to Brongniart, some pieces of this ware have been found with marks engraved with a point after baking, and he observes that though in the Roman potteries found in France the potter's names are chiefly Latin, there are nevertheless some Gaulish names, such as *Divex*, *Vekivix*, *Buturix*, &c.

The annexed section (fig. 27), exposed while the improvements were in progress in Cannon Street, City, in 1851, was recorded by Mr. Chaffers, and will serve to illustrate the manner and relative position in which this ware is usually discovered in the city of London.

Fig. 27.



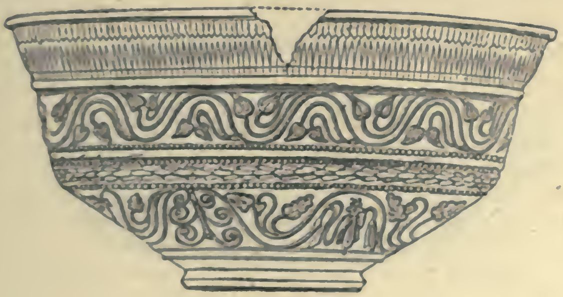
A, present level of the street. B, roadway previous to the great fire of London, 1666. C, ground in which the Norman and early English pottery is found. D, portion of Roman tesselated pavement. E, black soil, in which the red lustrous and other Roman ware is found. F, clay, resting on G, gravel.

Roman Red Lustrous Ware found in London.

E. 1. Large Vase; diameter at top, 9½ ins.; of elegant form, with pattern as in annexed figure (fig. 28). Paste or body red, with lustrous glaze in good condition. Potter's mark OF · VITAL (*Officinâ Vitalis*). Found in St. Martin's-le-Grand, London, August 1845.

Col. Chaffers, No. 295.

Fig. 28.



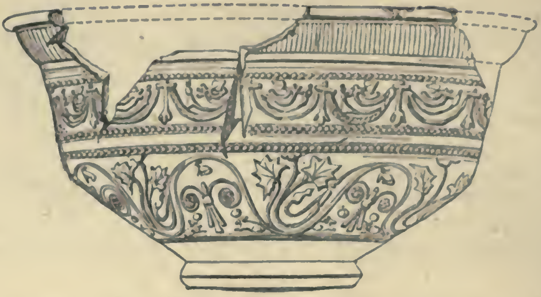
E. 2. Fragment of Vase; diameter about 9½ ins. Red paste, with lustre in good condition, and pattern as in annexed figure (fig. 29). Potter's mark OF·RVFINI. Found in London.

Coll. Chaffers, No. 326.

E. 3. Fragment of Vase; diameter about 9 ins. Red paste, with lustre well preserved; pattern with stags introduced. Found in Love Lane, Tower Street, London, July 1845.

Coll. Chaffers, No. 344.

Fig. 29.



E. 4. **Fragment** of **Vase**; diameter about 8 ins. Red paste, with good lustre; pattern with birds introduced. Found in London, 1844.

Coll. Chaffers, No. 324.

E. 5. **Fragment** of **Vase**; diameter about 8 ins. Red paste, with glaze in part decomposed; pattern with border of horizontal figures representing the Venus de' Medici (fig. 30). Found at St. Mary-at-Hill, London, July 1845.

Coll. Chaffers, No. 328.

E. 6. **Fragment** of **Vase** with upright sides. Red paste, with good lustre; pattern with figure of Victory introduced. Found in Cannon Street, City, 1848.

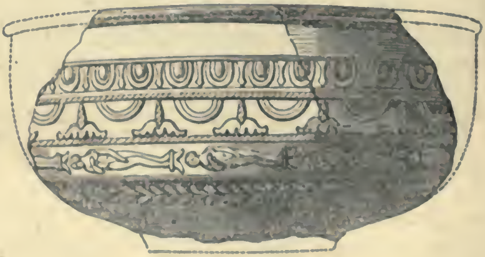
Coll. Chaffers, No. 850.

N.B.—The remaining fragments of red ware, with few exceptions, are placed in the lower compartment of this case (opposite side).

E. 7. **Fragment** of **Vase**. Red paste, with good lustre; pattern with Cupid and dog. Found in Philpot Lane, June 1845.

Coll. Chaffers, No. 376.

Fig. 30.



E. 8. **Fragment** of **Vase**. Red paste, with good lustre; pattern with Roman soldiers and tripod. Found in Friday Street, City, December 1844.

Coll. Chaffers, No. 187.

E. 9. **Fragment** of **Vase**. Red paste, with excellent lustre; pattern with robed figures. Found in Foster Lane, London, 1844.

Coll. Chaffers, No. 365.

E. 10. **Fragment** of **Vase**. Red paste with good lustre; pattern with vine leaves and tendrils, the stems forming a scroll with birds introduced. Found in Foster Lane, London, October 1844.

Coll. Chaffers, No. 354.

E. 11. Fragment of Vase, diam. about 10 ins. Red paste, with good lustre; pattern with hare hunted by hounds introduced in the upper compartment, and with birds and leaves in the lower. Found in Lad Lane, City, 1842.

Coll. Chaffers, No. 322.

E. 12. Fragment of Vase, diam. about 6½ ins. Red paste, with good lustre; pattern with dogs having ruffs on their necks. Potter's mark. Found in Queen Street, Cheapside, June 1850.

Coll. Chaffers, No. 954.

E. 13. Fragment of Vase. Red paste, with lustre somewhat dull; pattern with nude figure holding a club. Found at St. Paul's, London, October 1843.

Coll. Chaffers, No. 216.

E. 14. Fragment of Vase. Red paste, with good lustre. Found in Foster Lane, London, 1844.

Coll. Chaffers, No. 305.

This specimen has been mended by means of lead, in the same manner as porcelain is now repaired by metallic rivets. It shows the esteem in which the red ware was held in this country during the Roman occupation.

E. 15. Fragment of Vase, repaired with lead. Red paste, with good lustre; pattern with dogs and leaves. Found at the Greenwich Railway Terminus, Southwark, 1841.

Coll. Chaffers, No. 325.

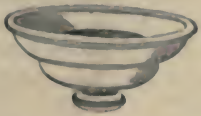
E. 16. Fragment of Vase, repaired with lead. Paste red, with good lustre; pattern with goose or duck flying as if coming into water. Found in Queen Street, Cheapside, 1850.

Coll. Chaffers, No. 741.

E. 17. Acetabulum, or vinegar cup, nearly perfect; diam. 4 ins. Red paste, with good lustre (fig. 31); plain surface, without ornament. Potter's mark. Found in London, 1849.

Coll. Chaffers, No. 963.

Fig. 31.



E. 18. Fragment of Acetabulum, diam. 4 ins. Red paste, with good lustre; plain. Potter's mark. Found in Nicholas Lane, London, 1850.

Coll. Chaffers, No. 955.

E. 19. Fragment of Cup, diam. 3⅛ ins. Red paste, with good lustre; form and pattern as in annexed figure (fig. 32). Potter's mark with footprint (fig. 33). Found at the Greenwich Railway Terminus, 1841.

Coll. Chaffers, No. 315.

The manufacture of this specimen may be referred to *Aretium* (modern *Arezzo*) by the print of the human foot that was there so commonly employed with the potter's mark, and probably had reference to the use of the foot in treading the clay. The ware of Aretium will be again referred to (p. 93).

Fig. 32.

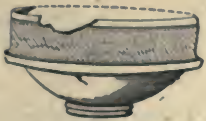
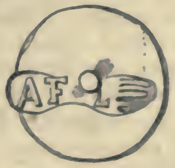


Fig. 33.



E. 20. Patera, nearly perfect; diam. 5 ins. Red paste, with good lustre; plain. Potter's mark.

Found in Bishopsgate Street, London, 1844.
Coll. Chaffers, No. 337.

E. 21. Patera, perfect; diam. 4 ins. Red paste, with good lustre; plain. Potter's mark, DECMI·M. Found in Lad Lane, London, 1842.
Coll. Chaffers, No. 327.

This vessel bears traces of having been used over fire.

E. 22. Fragment of Patera with handles; diam. 4½ ins. Red paste, with good lustre; plain. Found in Lad Lane, London, 1842.
Coll. Chaffers, No. 322.

E. 23. Fragment of Patera with handle. Red paste, with good glaze; plain. Potter's mark, OFF·SAB. Found in London.
Coll. Chaffers, No. 586.

E. 24. Fragment of Patera. Red paste, with moderately good lustre; leaf pattern in relief, laid on upon the rim, in slip, after the piece was turned. Found in Philpot Lane, London, 1845.
Coll. Chaffers, No. 621.

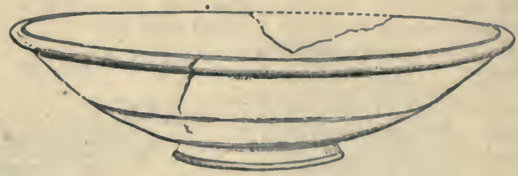
E. 25. Fragment of small Patera, with portion of handles. Red paste, with good glaze; leaf pattern in slip on rim. Found in London.
Coll. Chaffers, No. 661.

E. 26. Fragment of rim of Patera. Red paste, with lustrous glaze; leaf pattern laid on in slip of same body as the patera. Found in Lawrence Pountney Lane, London, August 1846.
Coll. Chaffers, No. 361.

E. 27. Fragment of rim of Bowl. Red paste, with good glaze; rim shows that after turning it has been cut in part, and a pattern produced by slip. Found in London.
Coll. Chaffers, No. 667.

E. 28. Bowl, nearly perfect (fig. 34); diam. 9 ins. Red paste, with good lustre; plain. Potter's mark, TITIVS, inside a circle with line pattern. Found in Queen Street, City, 1850.
Coll. Chaffers, No. 953.
(In upper compartment of case.)

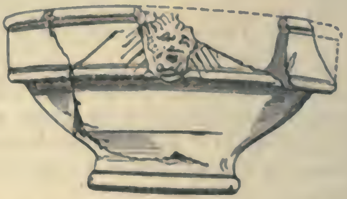
Fig. 34.



E. 29. Dish, not quite so perfect as last piece; diam. 9 ins. Red paste, with good lustre; plain, with lathe marks. Potter's mark, COSI·RVFIN. Found in London.
(Upper compartment.)
Coll. Chaffers, No. 331.

E. 30. Mortarium.* Red paste, with good lustre: external form as in the annexed figure (fig. 35), showing a mask, through the mouth of which the ground substances were poured. Potter's mark on the inside of the mask, VLIGGI·M. Found in London.
(Upper compartment.)
Coll. Chaffers, No. 380.

Fig. 35.

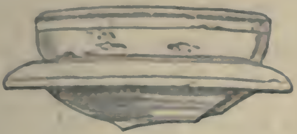


The mortarium, in which substances were ground for domestic use, was lined inside up to a certain height with grains of quartz or other hard stone, forced into the paste or body after the piece was finished. The substances having been ground or pounded, and probably mixed with some liquid, were poured out through the orifice in the mouth of the mask.

E. 31. Fragment of Vessel of uncommon external form, as represented in the annexed figure (fig. 36). Red paste, with good lustre. Found in London.

Coll. Chaffers, No. 631.

Fig. 36.



E. 32. Fragment of red lustrous ware, with potter's mark, OF·MONT·cK. Found in Cannon Street, London, 1848.

Coll. Chaffers, No. 844.

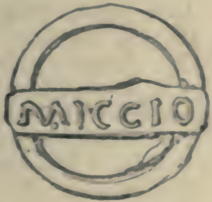
E. 33. Fragment of red lustrous ware, with potter's mark, RI·IOGENI. Found in London.

Coll. Chaffers, No. 627.

E. 34. Fragment of red lustrous ware, with potter's mark (fig. 37), MICCIO. Found in Creed Lane, London.

Coll. Chaffers, No. 516.

Fig. 37.



E. 35. Fragment of red lustrous ware, with potter's mark, ROPVSI·FF. Found in Queen Street, City.

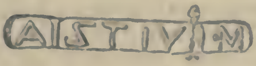
Coll. Chaffers, No. 545.

E. 36. Fragment of red lustrous ware, with potter's mark, PRIMIM. Found in Cannon Street, London, 1848.

Coll. Chaffers, No. 845.

E. 37. Fragment of red lustrous ware, with potter's mark, AISTIVI·M. Found in Creed Lane, London.

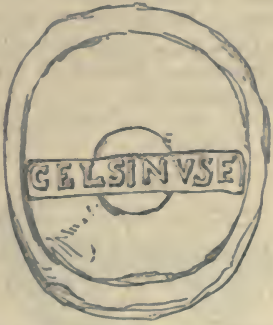
Coll. Chaffers, No. 533.



E. 38. Flat Catinus. Red paste, with lustre; plain. Potter's mark, CELSINVS·F (fig. 38). Found in Staining Lane, London, 1845.

Coll. Chaffers, No. 308.

Fig. 38.



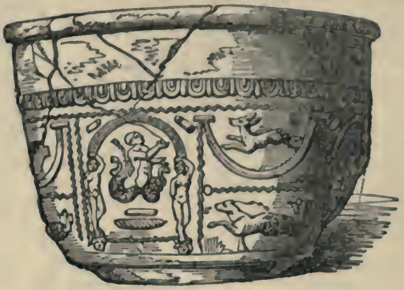
E. 38*a*. Fragment of Vase in red lustrous ware, ornamented in relief with foliated scroll-work, including leaves of the vine and ivy. Found in Throgmorton Street, London.

Presented by J. J. Cole, Esq., F.R.A.S., 1871.

Red Lustrous Ware found chiefly at Castor and at Colchester.

E. 39. Large Fragment of upright-sided Vase (fig. 39); diameter, 8 inches. Red paste, with lustre in part dull and decomposed. Pattern as in annexed figure (fig. 39.) A crack in this piece shows the way in

Fig. 39.



which it has been united in two places, by lead rivets, in the time of the Roman occupation of England. Found at Castor (the ancient Durobrivæ), near Peterborough, Northamptonshire.

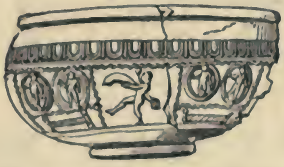
(Upper compartment of case.)

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 40. Large Fragment of Bowl (fig. 40). Diameter, about 6 inches. Red paste, with lustre in part decomposed. Pattern as in annexed figure (fig. 40). Exhibits ancient lead rivetting. Found at Castor, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

Fig. 40.



E. 41. Fragment of Bowl, exhibiting lead rivets in two places. Red paste, with glaze in part decomposed. Pattern with nude figure playing on a lyre. Found at Castor, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 42. Fragment of large Bowl. Red paste, with lustrous glaze. Pattern, a female figure in arch supported by tripods. Potter's mark in large letters outside, MVЯƎƧ. Found at Castor, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 43. Fragment of large Bowl. Red paste, with lustrous glaze. Pattern, an elegant scroll. Found at Castor, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 44. Shallow Bowl, perfect. Diameter, 9¾ inches. Red paste, with glaze in good condition inside, but decomposed outside. Potter's mark, CRISPINI, within a rayed circle. Found at Castor, Northamptonshire.

(Upper compartment.)

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 45. Fragment of Bowl, mended in two places with lead rivets. Red paste, with lustrous glaze. Pattern contains a female figure with helmet, shield, and spear, perhaps representing Minerva; also figure of a boar. Found at Castor, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 46. Fragment of Bowl, mended by a lead rivet. Red paste, with good glaze. Found at Castor, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 47. to E. 49. FRAGMENTS of BOWLS, ornamented with different patterns.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 50. FRAGMENT of a somewhat large MORTARIUM, with grains of quartz inserted in the part used for rubbing down or grinding substances.. Red paste, with good glaze; plain. Found at Castor, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 51. FRAGMENT, with Potter's mark, VINIINO·M. Found at Castor, Northamptonshire.

E. 52. FRAGMENT, with Potter's mark, AIISTVI·M, and circle passing amid the lettering. Found at Castor, Northamptonshire.

E. 53. FRAGMENT, with potter's mark, ADIECTI·M, with a small circle passing amid the letters. Found at Castor, Northamptonshire.

E. 54. FRAGMENT, with potter's mark, LVIIV·M, inside a circle. Found at Castor, Northamptonshire.

Nos. 51 to 54 from Coll. Artis.—Presented by Earl Fitzwilliam.

E. 55. BOWL, restored from numerous fragments, and parts supplied with plaster of Paris. Diameter, 9 inches. Red paste, with hard lustrous glaze. Exhibits lead rivets in several places where repaired during the Roman occupation of this country. Found at Colchester.

(In upper compartment of case.)

Presented by the late Rev. Professor Henslow.

E. 56. FRAGMENT of a MORTARIUM; diameter, 6 inches. Red glazed body, plain. Grains of quartz inserted into the paste in the interior, for a rubbing surface, apparently after it was turned on a lathe. Found at Colchester.

E. 57. FRAGMENT of a larger MORTARIUM in red glazed ware, with a lion's head on the outer rim, the open mouth serving for a passage through which the pounded or bruised matters were poured out, suspended in some liquid. Found at Colchester, 1850.

E. 58. FRAGMENT of BOWL in red lustrous ware, showing apparently an ancient fragment united to a broken bowl by three rivets of lead. Lathe marks on the exterior show that the bowl was turned in the upper part after removal from the general mould giving the pattern. Found at Colchester.

E. 59. FRAGMENT of BOWL in red glazed ware, with part of pattern of same kind as, though smaller than, that seen on fig. 39, namely, the figure of a man whose lower limbs terminate in serpents. Found at Colchester.

E. 60. BOTTOM of BOWL in red glazed ware, with potter's mark, ALBVCI·M. Found at Colchester.

E. 61. FRAGMENT of red glazed ware, with figure of lion in bas-relief. Found at Colchester.

E. 62. FRAGMENT of red glazed ware, with figure of rabbit or hare in bas-relief. Found at Colchester.

E. 63. FRAGMENTS of BOWLS in red glazed ware. Found at Colchester.

E. 64. FRAGMENTS of small BOWL (*acetabulum* or *salinum*) in red lustrous ware, with slight ornament in slip on projecting rim. Found in the Upchurch Marshes, on the coast of Kent.

E. 65. FRAGMENT of large BOWL in red lustrous ware, ornamented in relief with egg-and-tongue border and figure-subjects in panels. Found in the Upchurch Marshes on the coast of Kent.

Nos. E. 64 and 65 presented by J. Chisholm Gooden, Esq., 1871.

E. 66. FRAGMENT of large BOWL in red lustrous ware, ornamented in relief, with egg-and-tongue borders and figure-subjects in circular medallions and panels. Found at Grays Thurrock, Essex.

This is a large fragment representing a circular bowl about 9 inches in diameter and 5 inches high, The embossed ornaments including draped and winged figures, gladiators, rabbits, &c,, are much defaced by wear.

E. 67. FRAGMENT of CUP in lustrous red ware; plain body, with indented horizontal line running round the cup at about half its height. Found at Gray's Thurrock, Essex.

E. 68. PATERA in plain red lustrous ware, and fragment of another similar dish. Found at Grays Thurrack, Essex.

Nos. E. 66 to E. 68 presented by the late R. Meeson, Esq., F.S.A., 1869.

E. 69. ACETABULUM in plain red lustrous ware, with stamped name in the bottom; perfect specimen, but locality unknown.

E. 70. PATERA, 10 inches in diameter, in red lustrous ware; with potter's name impressed, surrounded by a rayed circle; dredged up from the Pan Rock, Whitstable Bay, coast of Kent.

This patera, like the four next pieces, has oyster shells, flustra and other marine organisms adhering to it.

E. 71 and 72. PATERÆ, 7 inches in diameter, in plain red lustrous ware, with potter's marked impressed. Pan Rock, Whitstable.

E. 73. ACETABULUM, 2 inches in diameter, in plain red lustrous ware, with potter's mark impressed. Pan Rock, Whitstable.

E. 74. ACETABULUM, 4 inches in diameter, in plain red lustrous ware, with star stamped in centre inside. Pan Rock, Whitstable.

Other kinds of Roman Pottery found in England.

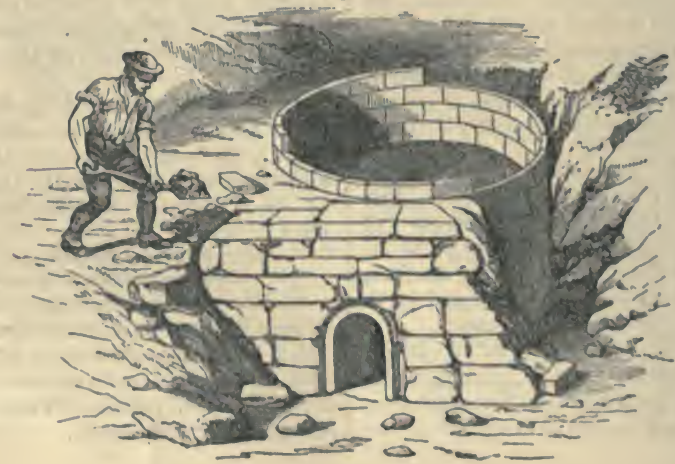
[Placed in upper compartment of Case 2.]

E. 75. MODEL of a ROMAN KILN for firing pottery, found in Normangate Field, Castor, near Peterborough, which, according to Mr. E. T. Artis, was the ancient *Durobrivæ* of Antoninus.

Coll. Artis.—Presented by Earl Fitzwllliam.

The accompanying sketch (fig. 41) is a reduction of the representation of this kiln given by Mr. Artis, in his *Durobrivæ of Antoninus, Illustrated*, pl. XL., fig. 3. The kiln was discovered in December 1822, and vessels and fragments of pottery were found in connexion with this and another kiln mentioned on next page, many of which are in this collection. Both kilns were of small size.

Fig. 41.

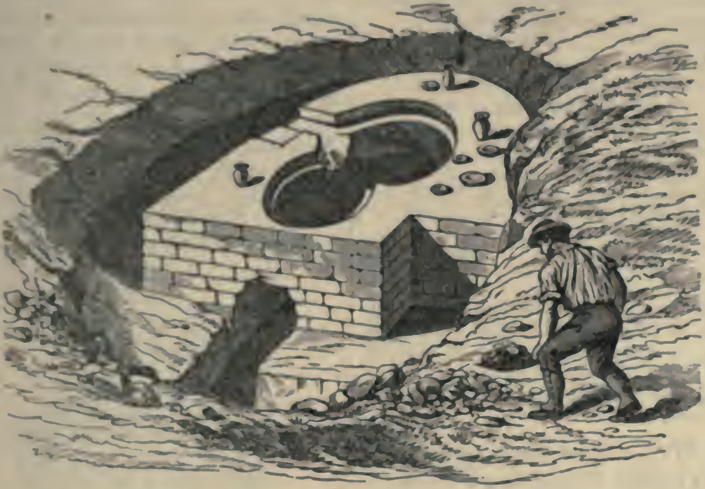


E. 76. Model of another Roman Kiln for firing pottery, found in Normangate Field, Castor; December 1822.

Coll. Artis.—Presented by Earl Fitzwilliam.

This kiln is figured by Mr. Artis in his *Durobrivæ of Antoninus*, pl. XL., fig. 1, from which the annexed figure is reduced (fig. 42). In pl. XXXIX. of the work just mentioned will be found a plan of the ground occupied by the Roman pottery, showing the site of the works and the course of a Roman road. Both these wax models were constructed by Mr. Artis.

Fig. 42.



E. 77. to E. 78. Eight Bone or Ivory Tools, found on the site of the Roman pottery at Castor in 1822 and 1823, by Mr. E. T. Artis, and in part figured by him in his *Durobrivæ of Antoninus*, pl. XLIII.

Coll. Artis.—Presented by Earl Fitzwilliam.

Some of these objects in bone appear to be pins for personal ornament; one of the specimens may have been a spindle-whorl. It may be doubted whether any of them had any use in the manufacture of pottery.

E. 79. to E. 83. Five Bronze Tools found on the site of the Roman pottery at Castor, with the above, by Mr. Artis, and figured by him in his work above mentioned, pl. XLII.

Coll. Artis.—Presented by Earl Fitzwilliam.

These are chiefly small spoons, or ligulæ; one of the objects is clearly a pair of tweezers.

E. 84. Bronze Instrument, from the collection made at Castor, the use of which is not clear, but which may have been employed in the pottery.

Coll. Artis.—Presented by Earl Fitzwilliam.

This is a large bronze spoon, having a stud fastened to the bowl serving as a rest; the handle is perforated.

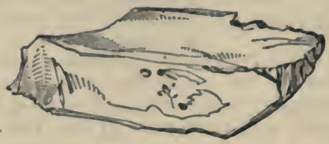
E. 85. Shaped Bone, from Castor, apparently intended to smooth some soft substance, like potter's clay, a handle being inserted into the central perforation.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 86. Large Fragment of a Cake of Glass or Frit (fig. 43). found on the site of the Roman pottery at Castor, probably such as was there used for glazing the pottery.

Coll. Artis.—Presented by Earl Fitzwilliam.

Fig. 43.



The composition of this substance, according to an analysis made at the Museum of Practical Geology, is as follows:—

Silica - - -	69·40
Alumina - -	2·62
Protoxide of iron -	0·91
Protoxide of manganese	0·64
Magnesia - -	0·79
Lime - - -	7·81
Potash - - -	0·98
Soda - - -	14·63
Carbonic acid - -	0·32
	98·10

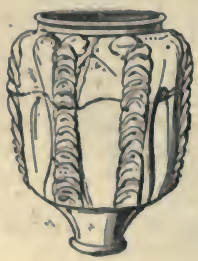
It is thus a glass composed essentially of the silicates of soda and lime, and having a composition similar to that of much of the ancient Roman glass. Compare analyses of specimens from Naples in the Museum.

E. 87. Cake of Iron, much oxidized, rudely cast in the bottom of a crucible or mould. Found on the site of the Roman pottery at Castor.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 88. Vase (fig. 44), 6 inches high. Paste, yellowish brown, with reddish-brown glaze, having a slightly metallic lustre. Sides impressed in six compartments with the intervening ridges ornamented with imbricated scales, apparently made by overlapping cut pieces of the clay before glazing. Found in a Roman pottery kiln, Normangate Field, Castor; December 25, 1822.

Fig. 44



Coll. Artis.—Presented by Earl Fitzwilliam.

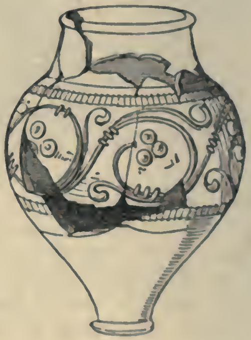
This specimen is figured in Artis's *Durobrivæ*, pl. LIII., fig. 1.

E. 89. Vase (fig. 45), 5¼ inches high. Paste, yellowish brown, with black glaze, ornamented with elegant engobe scroll applied in white pipeclay. Tool marks before glazing above and beneath the scroll. Found in a Roman building near Water Newton, Northamptonshire; February 1826.

Coll. Artis.—Presented by Earl Fitzwilliam.

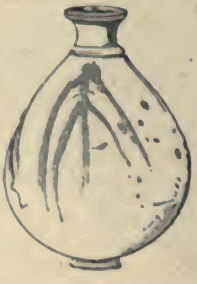
Figured in Artis's *Durobrivæ*, pl. XLI. fig. 1.

Fig. 45.



E. 90. Vase (fig. 46), 6¾ inches high. Body yellowish white, with stronger yellow on the exterior. Painted with black as represented

Fig. 46.



in the figure. Found at the Roman pottery, Normangate Field, Castor, 1826.

Coll. Artis.—Presented by Earl Fitzwilliam.

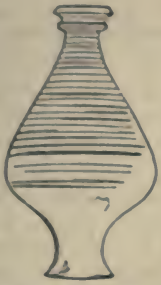
Figured in Artis's *Durobrivæ*, pl. XLVII., fig. 1.

E. 91. Vase (fig. 47), 4¾ inches high. Body light brown, unglazed. Found in a Roman potter's kiln, Normangate Field, Castor; December 25, 1822.

Coll. Artis.—Presented by Earl Fitzwilliam.

Figured in Artis's *Durobrivæ*, pl. LI., fig. 2.

Fig. 47.

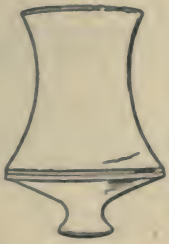


E. 92. Vase (fig. 48), 3¼ inches high. Body white, with red glaze; dark coloured where most fired. Found in a Roman potter's kiln, Normangate Field, Castor; December 25, 1822.

Coll. Artis.—Presented by Earl Fitzwilliam.

Figured in Artis's *Durobrivæ*, pl. LIV., fig. 1.

Fig. 48.

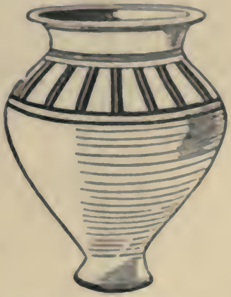


E. 93. Vase (fig. 49), 6½ inches high. Body dark coloured, as if from a carbonaceous clay not highly fired. Pattern produced partly by glossy lines upon a dull ground, as if from smoothing pressure by a tool, and partly by bands from turning in a lathe. Found, February 1826, in a Roman building at Water Newton, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

Figured in Artis's *Durobrivæ*, pl. LI., fig. 2.

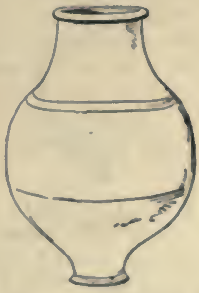
Fig. 49.



E. 94. Vase (fig. 50), 5 inches high. Paste light red, with red glaze. Found on the site of the Roman pottery at Castor.

Coll. Artis.—Presented by Earl Fitzwilliam.

Fig. 50.



E. 95. Bottle, 6½ inches high. Body white with coating or glaze which is dull and black where most fired, and blackish brown elsewhere; ornamented with bands of tool marks. Found on the site of the

Roman pottery, Normangate Field, Castor.

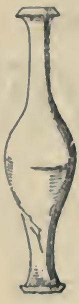
Coll. Artis.—Presented by Earl Fitzwilliam.

Figured in Artis's *Durobrivæ*, p. LXVII., fig. 4.

E. 96. Unguentarium (fig. 51), 4 inches high. Body brown, with dull blackish-brown coating. Found at Castor, Northamptonshire.

Coll. Artis.—Presented by Earl Fitzwilliam.

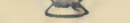
Fig. 51.



E. 97. Unguentarium (fig. 52), 2½ inches high. Body brown, with dull brown coating. Found at Castor.

Coll. Artis.—Presented by Earl Fitzwilliam.

Fig. 52.



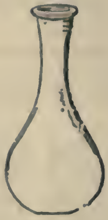
E. 98. } Unguentaria. Body
E. 99. } yellowish brown, with brown coating. Found at Castor.

Coll. Artis.—Presented by Earl Fitzwilliam.

E. 100. Unguentarium (fig. 53), 2½ inches high. Body reddish, with traces of glaze. Found at Castor.

Coll. Artis.—Presented by Earl Fitzwilliam.

Fig. 53.



E. 101. Lamp, Paste yellowish brown, with dull red glaze. Found at Castor, 1826.

Coll. Artis.—Presented by Earl Fitzwilliam.

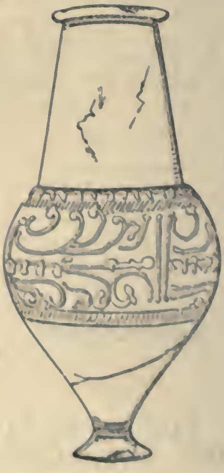
Figured in Artis's *Durobrivæ*, pl. XLVII., fig. 3.

Many other specimens of Roman pottery found at Castor are exhibited in the lower part of this case. (*See* p. 80 *et seq.*)

E. 102. Vase (fig. 54), 8 inches high. Paste yellowish brown, similar to that of much pottery found at Castor, and probably manufactured there; glaze in larger and upper portion black, ornamented with slip in white pipeclay, and with two bands of tool marks made before glazing; stem of vase glazed red. Found at Winchester.

Coll. Chaffers, No. 707.

Fig. 54.



E. 103. Vase, 4¾ inches high. Body blackish gray, with smoothed surface, ornamented with band of crossed lines forming a diamond-pattern. Found at Winchester.

Coll. Chaffers, No. 708.

E. 104. Vase, 6 inches high. Paste yellowish brown, coated with black glaze on the larger and upper portion, and red glaze on the stem; pattern made by tool marks in band; general character resembling No. E. 102. Found at Colchester in 1851.

E. 104*a*. Vase, 3 inches high. Body yellow and earthy, unglazed. Found at Colchester in 1851.

E. 105. Vase, 4 inches high. Paste light red, coated with blackish glaze. Found at Grays Thurrock, Essex.

A slender bronze torque, 2 inches in diameter, is placed round the neck of this vase; and it is believed that the ring was found in this position when the vessel was dug up. There are four similar torques in the metallurgical collection of this museum, which were also found at this locality.

E. 105*a*. Vase, 4 inches high. Paste yellowish, the surface almost black. Globose body divided into lobes by sixteen vertical indentations. Found at Grays Thurrock, Essex.

E. 105*b*. Vase, 2½ inches high; diameter of mouth 3½ inches. Paste pale brown, with ash-coloured surface, exhibiting horizontal lathe-marks. Found at Gray's Thurrock, Essex.

Nos. E. 105 *to E.* 105*b presented by the late R. Meeson, Esq., F.S.A.*, 1869.

E. 106. Vase, 4½ inches high. Paste yellowish brown, with rough ash-coloured exterior, ornamented with simple lines turned on a lathe. Found at a depth of seven feet in brick-earth at Murston, Sittingbourne, Kent.

Presented by Prof. T. McK. Hughes, M.A., F.G.S., F.S.A.

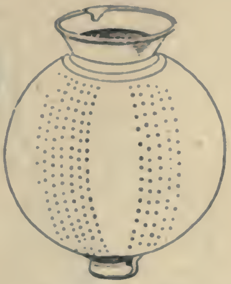
E. 107. Vase, 7¾ inches high. Body dark gray, with a kind of glazing produced by pressure or smoothing of parts of the surface, ornamented with vertical lines in the lower portion. Found in Kent Street, Southwark, 1847.

Coll. Chaffers, No. 705.

E. 108. Vase (fig. 55), 4½ inches high. Paste reddish where most fired, of darker colour in other parts; glaze black; shape globose, with vertical bands of dots upon a plain turned surface, the dots probably laid on in the manner of stencilling. Found in Queen Street, Cheapside, June 1850.

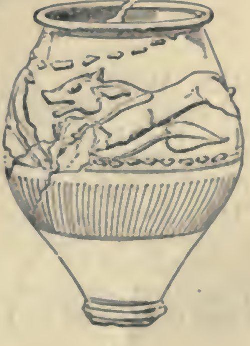
Coll. Chaffers, No. 958.

Fig. 55.



E. 109. Vase, (fig. 56), 4½ inches high. Paste white, with dark glaze having metalloid lustre, ornamented with hounds hunting a stag, in slip of the same kind as the paste, applied

Fig. 56.



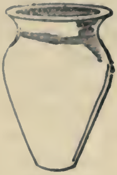
after the vase was turned; tool work at the bottom. Found at Cateaton Street, London; January 1845.

Coll. Chaffers, No. 234.

E. 110. **Vase** (fig. 57), $3\frac{1}{2}$ inches high. Body light brownish red, unglazed. Found in London.

Coll. Chaffers, No. 190.

Fig. 57.

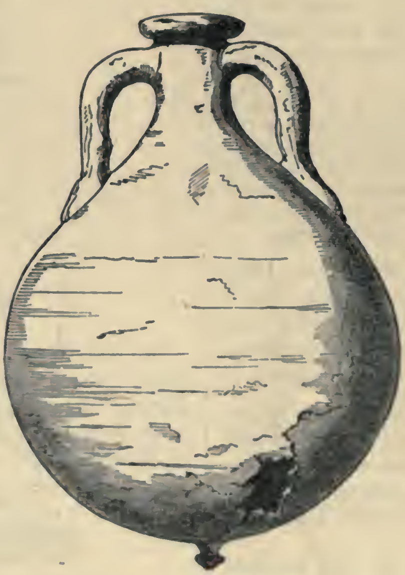


E. 111. **Large Amphora** (fig. 58), height 2 feet 9 inches, greatest diameter 2 feet. Body light brown, not fine, but well worked, like many Roman tiles; unglazed. Found at Aldermanbury, London.

Coll. Chaffers, No. 989.

This specimen, on account of its unusually large size, could not be exhibited in this case, and is therefore mounted on a tripod which stands on the top of Wall Case XXIX.

Fig. 58.



E. 112. **Amphora** (fig. 59), height 17 inches. Body light brown, unglazed. Found in digging the foundation of London Bridge.

Coll. Chaffers, No. 135.

E. 113. **Amphora** (fig. 60), height $16\frac{3}{4}$ inches. Body red, unglazed, ornamented with a zig-zag and a plain band running round the shoulder at the base of the handles. Found in Old Broad Street, London August 1850.

Coll. Chaffers, No. 962.

E. 114. **Amphora**, height $9\frac{1}{2}$ inches. Body light brown, finer texture, unglazed. Found in Moorgate Street, London, 1837.

Coll. Chaffers, No. 711.

Fig. 59.

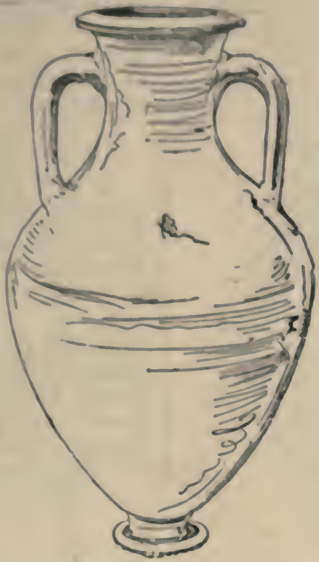
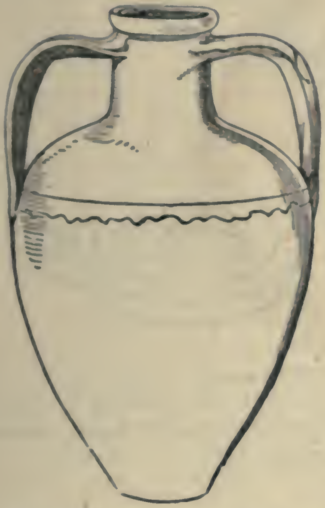


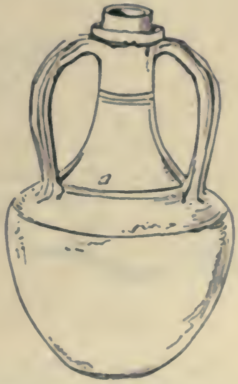
Fig. 60.



E. 115. Amphora, of peculiar form (fig. 61); height 8¾ inches. Body light reddish brown, covered with red coating, much resembling a dull decomposed red glaze. Found in Cannon Street, London.

Coll Chaffers, No. 718.

Fig. 61.



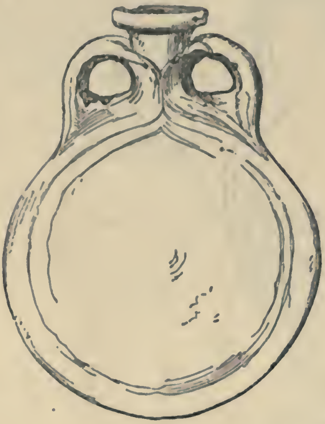
E. 116. Flattened Amphora (fig. 62), resembling a pilgrim's bottle; height 7½ inches. Body dull reddish brown, unglazed; red markings round the flattened sides. Found in Moorgate Street, London, 1835.

Coll. Chaffers, No. 713.

E. 116*a*. Vase, bottle-shaped, with handle; 6 inches high. Plain body, buff-coloured, unglazed, with lathe-marks. Found in Smithfield, London.

Coll. Cato, 1874.

Fig. 62.



E. 117. Mortarium (fig. 63); diameter 10¾ inches. Body light brown, somewhat coarse, unglazed. Potter's mark, ALBINVS. Found in Cock Lane, Smithfield, London, April 1844.

Coll. Chaffers, No. 119.

E. 118. Lamp (fig. 64). Body yellowish brown, with black glaze. Found in Queen Street, Cheapside, London, 1842.

Coll. Chaffers, No. 255.

E. 119. Lamp (fig. 65). Body yellowish brown; glaze nearly removed by decomposition, the portions that remain being black. Found in Lad Lane, London, 1842.

Coll. Chaffers, No. 237.

Fig. 63.

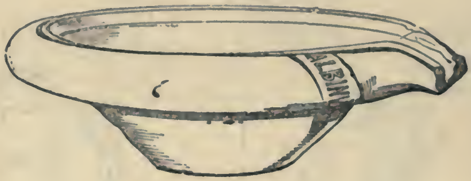


Fig. 64.

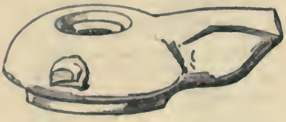
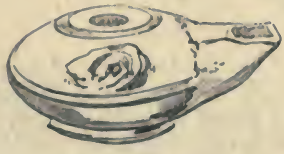


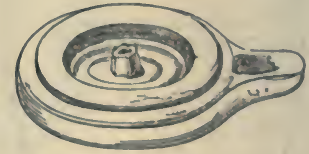
Fig. 65.



E. 120. Lamp, for fixing on a point (fig. 66). Body red, partly painted black, glaze transparent, apparently over the whole. Found in Queen Street, Cheapside, London, 1842.

Coll. Chaffers, No. 249.

Fig. 66.



E. 121. Lamp. Body light brown, coated with red covering, much decomposed; ornamented with wreath of laurel. Found in London.

Coll. Chaffers.

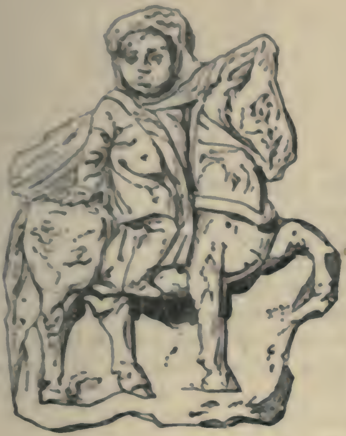
E. 122. Small Lamp, imperfect. Body yellowish brown, covered with red glaze. Found in London.

Coll. Chaffers.

E. 123. Terra-cotta Toy (fig. 67), representing a boy on horse-

back. Body reddish brown. Found in the Borough (Southwark), 1840.
Coll. Chaffers, No. 715.

Fig. 67.

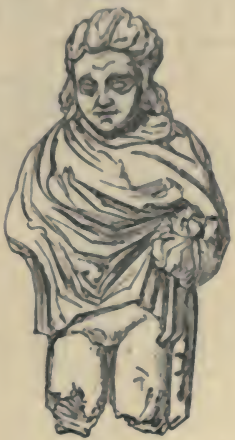


E. 124. TERRA-COTTA TOY (fig. 68), representing a boy partly draped. Found in London.
Coll. Chaffers, No. 772.

E. 125. TERRA-COTTA TOY. Armed female head, perhaps that of Minerva, with part of a shield and of a spear. Found in Lad Lane, London.
Coll. Chaffers, No. 250.

E. 126. VESSEL, supposed to be a crucible; hemispherical shape, with spout; diameter, 2½ inst.; height, 2 ins. Paste light brown, with embedded grains of quartz; surface smoked by firing. Found in Smithfield, November 1865.
Coll. Cato.

Fig. 68.



E. 127. VESSEL, supposed to be a crucible; similar to E. 126, but smaller. Found East of St. Mildred, Poultry, December 1866.
Coll. Cato.

E. 128. VASE, 4½ ins. high. Paste red, with reddish brown lustrous surface. Body globose, with four impressions apparently made with the thumb, separated by vertical lines of indented dots. Found in Fenchurch Street, August 1866.
Coll. Cato.

[N.B. The remaining specimens of Roman pottery found in Britain are placed in the lower part of the case.]

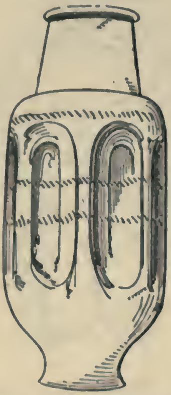
E. 129. VASE (fig. 69), 5¾ ins. high. Paste red where most fired, darker colour inside; glaze black, the red tint of the paste somewhat apparent through the glaze; pattern produced by tool marks in bands, after turning on the lathe; the sides depressed in seven compartments. Found in Lothbury, London, 1847.
Coll. Chaffers, No. 173.

E. 130. VASE, 7½ ins. high, with six impressions in the sides. Body brown, with purple glaze having metalloid lustre. Found at Crockhill, New Forest, Hampshire.

E. 131. to E. 132. } SIX VASES, similar to last piece, height ranging from 7½ to 8 ins. Body light gray, with purplish glaze, slightly metallic in lustre, more or less decomposed. Found at Crockhill, New Forest, Hampshire.

All these vases are characterized by impressions in the sides, resembling those in fig. 69. Some of these indentations appear to have been made by pressure of the thumb, and in No. E. 132 they are so deep as almost to meet inside the vessel, and thus nearly obliterate the cavity. This specimen, being small, has only four impressions, while each of the others has six. Most of them exhibit tool marks in the form of indented lines running round either the neck or the body.

Fig. 69.



E. 133. **Vase**, bottle shaped, neck and base broken. Paste yellowish brown, with red coating, darker where burnt; ornamented with vertical lines in white engobe, and horizontal tool marks round the neck. Found at Crockhill, in the New Forest, Hampshire.

E. 134. **Vase**, bottle shaped, neck broken. Paste reddish brown with purplish glaze, darker where apparently exposed to fire. Found in the New Forest, Hampshire.

E. 130 *to* 134, *presented by J. R. Wise, Esq.*, 1863.

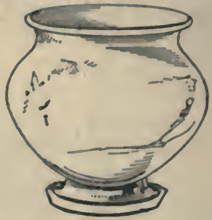
E. 135. **Vase**, 7¼ ins. high. Body gray, rendered coarse by numerous fragments of flint made white by the firing of the vase, unglazed. Found in Well Street, Cripplegate, London, June 1846.

Coll. Chaffers, No. 129.

E. 136. **Vase** (fig. 70), 4⅜ ins. high. Body yellowish brown, unglazed. Found, containing bones, charcoal, and wood ashes, in Well Street, London.

Coll. Chaffers, 770.

Fig. 70.



E. 137. **Part** of a **Vase**, 6½ ins. high. Paste yellowish brown, similar to that often mentioned from Castor; glaze preserving colour of the paste, except at the bottom, where darker colour is seen, tinted, perhaps before glazing; pattern, three lines of tool work, and eight large indentations on the widest circumference. Found at Castor, Northamptonshire.

Coll. Artis.

E. 138. **Part** of a **Vase**; fragment 6 ins. high and 6 ins. in diameter. Paste whitish, with metalloid brown glaze; pattern, dog and scroll work in relief. Found at Castor.

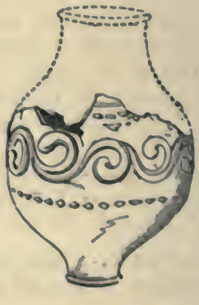
E. 139. **Part** of a **Vase**, 5 ins. high. Body white, outer coating dull gray. Found at Castor.

Coll. Artis.

E. 140. **Part** of a **Vase** (fig. 71). Paste whitish, but glaze more red, and with slight metalloid lustre: pattern, raised scroll. Found at Castor.

Coll. Artis.

Fig. 71.



E. 141. Small Vase, 3 ins. high. Body gray, unglazed, outside yellowish and blackish. Found at Castor.

Coll. Artis.

E. 142. Small Vase. Paste fired yellowish brown, covered with a dull red glaze, not well vitrified. Found on the site of the Roman pottery at Castor in 1826.

Coll. Artis.

Figured in Artis's *Durobrivæ of Antoninus*, pl. XLVII., fig. 2.

E. 143. Portion of a small Vase, ribbed outside. Paste reddish yellow; glaze brownish; apparently the red body somewhat highly fired. Found at the Roman pottery, Castor.

Coll. Artis.

E. 144. } Two Heads of Jugs,
E. 145. } with trefoil lips. Body gray white with dull ash-coloured exterior. Found at Castor.

Coll. Artis.

This form appears to have been somewhat common at the Castor pottery, as many similar examples have been found there.

E. 146. Vessel, with portion of its cover (fig. 72). Height 5 ins., diameter 6½ ins. Paste yellowish, white where most fired, darker tint where least so; glaze red, imperfectly and unequally fused; pattern produced partly by turning on a lathe, and partly by impressions with a tool. Found in a Roman building, Suttonfield, near Castor.

Coll. Artis.

This specimen is represented in Artis's *Durobrivæ of Antoninus*, pl. XLIX., fig. 4.

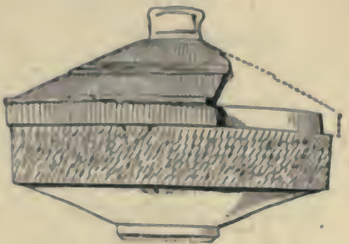
E. 147. Shallow Bowl, 6¾ ins. in diameter. Body gray white, glaze dark, with metallic lustre from admixture of pounded mica. Bottom cracked in the firing, probably a piece cast aside. Found at Castor.

Coll. Artis.

E. 148. Part of a Bowl-formed Vessel. Body gray white, with dull ash-coloured exterior, pattern indented by tool marks. Found at Castor.

Coll. Artis.

Fig. 72.



E. 149. Fragment of Vessel similar to No. 146, but of larger dimensions, its curve giving a diameter of about 12½ ins. Body white, glaze red in the interior, but dark coloured outside where more fired. Found at Castor.

Coll. Artis.

E. 150. Fragment of Vase, 4½ ins. high. Body white, glaze or coating dull black, with somewhat metalloid lustre inside, and towards the base outside; pattern in raised cross lines forming diamonds, as if from pressure in a mould. Found at Castor.

Coll. Artis.

E. 151. Fragments of pottery. Paste yellowish red, with brown glaze unequally fired. Pattern, an elegant scroll in relief, in part crazed. Found at Castor.

Coll. Artis.

E. 152. Fragment of pottery (fig. 73). Paste yellowish red, with lustrous glaze, somewhat metalloid. Pattern, hound chasing a deer, with scroll work in relief in engobe. Found at Castor.

Coll. Artis.

E. 153. Fragment of pottery, similar to last, perhaps part of the same vase. Found at Castor.

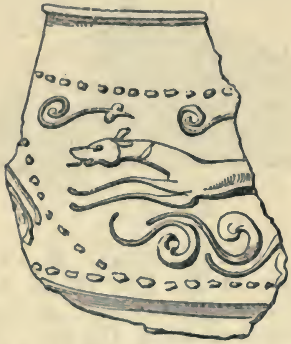
Coll. Artis.

E. 154. Fragment of pottery.

Paste yellowish red, glaze apparently very highly fired. Pattern, elegant scroll in relief. Found at Castor.

Coll. Artis.

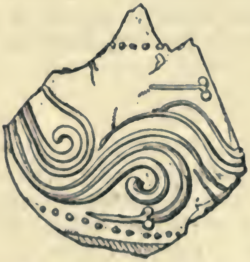
Fig. 73.



E. 155. FRAGMENT of pottery (fig. 74). Paste whitish; glaze with somewhat metalloid lustre. Pattern, elegant scrolls in relief. Found at Castor.

Coll. Artis.

Fig. 74.



E. 156. FRAGMENT of pottery (fig. 75), similar to last. Pattern, raised scrolls, seen to pass over indentations made previously by a tool on the surface of the vase, after turning on the lathe, the marks of which can be traced. Found at Castor.

Coll. Artis.

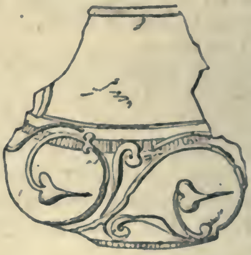
E. 157. FRAGMENT of pottery. Paste yellowish red, glazed inside and outside. Found at Castor.

Coll. Artis.

E. 158. } FRAGMENTS of similar
E. 159. } pottery showing method of adding raised dots for a band of fruit or flowers by dabbing prepared clay on the surface of the vase after turning. Found at Castor.

Coll. Artis.

Fig. 75.



E. 160. FRAGMENT of similar pottery; pattern uncommon. Found at Castor.

Coll. Artis.

E. 161. FRAGMENT of similar pottery, with lustrous glaze and scroll pattern. Found at Castor.

Coll. Artis.

E. 162. FRAGMENT of similar pottery, but with paste more white; raised pattern, nude figure of a man with belt round his loins. Found at Water Newton, Northamptonshire. November 1827.

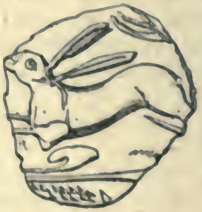
Coll. Artis.

Figured by Artis in his *Durobrivæ of Antoninus*. pl. XXX., fig. 4.

E. 163. FRAGMENT of similar pottery (fig. 76); part of pattern, a hare in relief. Found at Castor.

Coll. Artis.

Fig. 76.



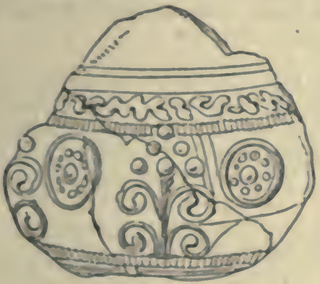
E. 164. Fragment of similar pottery. Found at Castor.
Coll. Artis.

E. 165. Fragment of similar pottery. Found at Castor.
Coll. Artis.

E. 166.
E. 167.
E. 168. Fragments of pottery (fig. 77). Paste yellowish brown, glaze black, with engobe pattern in white pipe-clay; tool marks before glazing. Found in a potters kiln, Normangate Field, Castor; December 25, 1822.
Coll. Artis.

These fragments, apparently arranged as one, to show pattern, are figured in Artis's *Durobrivæ*, pl. III. fig. 2.

Fig. 77.



E. 169. Fragment of pottery. Paste yellowish brown, with dark brown glaze. Portion of a vase with impressed side and two ridges ornamented with imbricated scales in red paste.
Coll. Artis.

E. 170. Fragment of pottery. Paste whitish, covered with red glaze, better fired on the outside than the inside, ornamented externally with pattern in white pipe-clay engobe. Found at Castor.
Coll. Artis.

E. 171. Fragment of pottery. Paste yellowish brown, glaze or covering red and earthy, not well vitrified.
Coll. Artis..

E. 172. Fragment of pottery. Paste yellowish brown covered with red glaze, somewhat highly fired, so as to assume a brown tint; outside ornamented by indentation with a tool. Found at Castor.
Coll. Artis.

E. 173. Fragment of pottery; portion of a bowl. Paste yellowish brown with red glaze not well vitrified, though possessing somewhat of the metalloid lustre inside: pattern produced by impressions with a tool. Found at Castor.
Coll. Artis.

E. 174.
E. 175. Fragments of pottery, apparently of bowls. Body black to grey white, from differences arising from the different amount of firing given to the original carbonaceous clay; patterns produced by tool impressions, for which compasses have been employed. Found in the Roman pottery at Castor.
Coll. Artis.

E. 176. Fragment of pottery. Body whitish gray; with dark exterior; pattern produced by glassy intersecting lines. Found at Castor.
Coll. Artis.

E. 177. Fragment of Baked Clay, of reddish brown colour, with imprints of workmen's fingers. Found at the Roman pottery, Castor.
Coll. Artis.
Nos. E. 138 *to* E. 177 *presented by Earl Fitzwilliam.*

E. 178. Fragment of pottery. Body gray with dark exterior; pattern in white engobe. Found in the New Forest, Hampshire.

E. 179. Fragment of Cup. Body light brown unglazed. Found in Holt Forest, Hampshire.

E. 180. Fragment of pottery. Body blackish brown, highly fired; glaze lustrous; pattern partly from turning, partly from tool marks. Found in Holt Forest, Hampshire.

E. 181. Fragment of Cup in

similar ware. Found in Hampshire.

E. 182. FRAGMENT of pottery. Body white outside where most fired, grey inside; pattern with tool-mark impressions. Found at Colchester.

E. 183. FRAGMENT of VASE. Paste white, glaze black, with pattern in yellowish white engobe. Found at Colchester.

E. 184. FRAGMENT of pottery. Body white; glaze red inside, black outside, the latter probably produced by being more highly fired: lustre somewhat metallic: pattern, part of an engobe scroll on glaze in white pipeclay. Found at Colchester.

E. 185. FRAGMENT of pottery. Body yellowish brown, glaze red, with engobe of white pipeclay. Found at Colchester.

E. 186. FRAGMENT of pottery. Body white, glaze red, with angular pattern in white engobe. Found at Colchester.

The engobe has apparently been laid on before firing, inasmuch as at the places which it has once covered, but from which it has now fallen off, the glaze is more red, from having been less exposed to the heat than in other places where the original red glaze is blackened.

E. 187. FRAGMENT of pottery. Paste red, with dark exterior and raised dots. Found at Colchester.

E. 188. FRAGMENT of pottery. Body white, stained red outside; pattern from tool marks. Found at Colchester.

E. 189. FRAGMENT of pottery. Paste brownish red, coarse, unglazed; pattern from tool marks. Found at Colchester.

E. 190. FRAGMENT of pottery, apparently part of a vase, with indented sides. Body red where most fired, dark inside; glaze dark colored. Found at Colchester.

Presented by the late Rev Prof. Henslow.

A rough surface is given to this body apparently by pounded fragments of pottery scattered on the exterior before glazing.

E. 191. FRAGMENT of BOWL. Body dark coloured inside, white where most fired externally; the dark colour probably due to carbonaceous matter; glaze black. Found at Colchester.

E. 192. FRAGMENTS of pottery with tool-mark indentations. Found at Colchester.

E. 193. FRAGMENT of pottery. Body light brown, unglazed; pattern from tool marks. Found at Colchester.

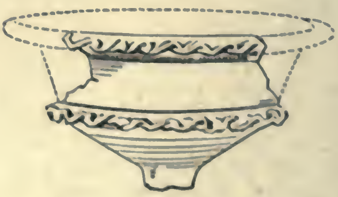
E. 194. FRAGMENT of MORTARIUM Paste light brown, with imbedded fragments of quartz; unglazed. Found at Gray's Thurrock, Essex.

Presented by the late R. Meeson, Esq., F.S.A., F.G.S., 1869.

E. 195. LARGE FRAGMENT of VASE (fig. 78.) Body light brown, somewhat coarse, unglazed; pattern with took marks. Found in St. Martin's-le-Grand; October 1845.

Coll. Chaffers, No. 167.

Fig. 78.



E. 196. SHALLOW VASE. 7½ in. in diameter; 2¾ inches in height. Paste pale brown; coarse texture, with embedded grains of quartz; unglazed, but burnt black on one side where it has been exposed to fire.

Found in Owersley parish, Lincolnshire.

Presented by the Rev. H. R. Lloyd.

This vessel was found with many others, in trenching a field in Owersley parish. All the vessels were broken by the workmen, excepting this specimen, which was presented by one of the workmen to the donor in 1851. The pottery was said to be associated with numerous bones, which appeared to have been burnt.

Upchurch Pottery.

It is well known that the so-called marshes at the mouth of the Medway, especially in the neighbourhood of the village of Upchurch, were the site of extensive potteries during the Roman occupation of Britain. A layer of pottery, in some places a foot in thickness, may be traced over a considerable area, and although this pottery is for the most part in mere fragments, yet associated with these are occasionally found well-preserved vessels, several examples of which are in this collection. The Romano-British pottery of Upchurch has a character of its own by which it may be traced over many parts of Britain and even on the Continent. It appears to have been made of local clays, and presents usually a blueish-black colour; a colour which is generally attributed to the ware having been fired in "smother-kilns," where the reducing action of the smoke and hydro-carbon vapours would tend to prevent the iron in the clay passing into the state of peroxide, to which the red colour of pottery is generally due. Whilst the forms of the Upchurch pottery are by no means inelegant, the ware was evidently intended for useful rather than for ornamental purposes, and it consequently presents little or no ornamentation. Such ornament as it does present consists either of incised lines, straight, wavy, or zigzag; or of raised bosses and studs, grouped in bands or circles. This ware never bears any potter's marks.

E. 197. VASE, 5½ ins. high; greatest diameter of body 6 ins., contracted at mouth to 3¼ ins. Body ash-grey, with dull blueish-black surface, much eroded in patches exposing the lighter-coloured paste. Found in the Twinney Saltings, near Upchurch.

E. 198. VASE, 6 ins. high; greatest diameter of body 7 ins., contracted at mouth to 5 ins. Body, slate-coloured, with dull rough blackish surface, much eroded and exfoliating. Found in the Twinney Saltings, near Upchurch.

E. 199. VASE, 6½ inches high; greatest diameter of body 7½ ins., contracted at mouth to 5¼ ins. Body ash-coloured, with dull rough blackish surface, ornamented with very rude scratches. Found in the Twinney Saltings, near Upchurch.

E. 200. VASE, 6 ins. high; greatest diameter of body 6½ ins., contracted at mouth to 3½ ins. Body pale ash-grey, with dull blackish surface, ornamented with band of zig-zag lines scratched round the neck. Found in the Twinney Saltings, near Upchurch.

E. 201. VASE, 8 ins. high; greatest diameter of body, 8 ins.; contracted at mouth to 4 ins. Body slate-coloured, with dull blackish surface, showing horizontal lathe-marks.

E. 202. VASE, 2 ins. high. Body slate-coloured, with dull blackish surface, exfoliating; perforated with two circular holes, the burr of one directed inwards, and of the other outwards.

E. 203. VASE, 4½ ins. high; greatest diameter of body, 5½ ins. Body, slate-coloured, with feeblylustrous black surface, showing lathe marks.

E. 204. Vase, 2½ ins. high; diameter of mouth, 4 ins. Body slate-coloured, with slightly lustrous black surface.

E. 205. Vase, 4 ins. high; greatest diameter of body, 3½ ins.; contracted to small neck. Body ash-grey, with dull blackish surface, ornamented with a few incised horizontal lines.

E. 206. Vase, 4½ ins. high; diameter of mouth, 4¾ ins. Body ash-coloured, inclining to red, with black lustrous surface, slightly weathered, and showing horizontal lathe marks.

E. 207. Vase, 5½ ins. high; greatest diameter, 5½ ins.; contracted at mouth to 3½ ins. Body dark slate-coloured, becoming red where most fired; with dull blueish-black surface, exfoliating, and exposing the character of the paste at different depths; lathe marks very evident.

E. 208. Vase, 6¼ ins. high; greatest diameter of body, 8 ins.; contracted at mouth to 7 ins. Body ash-grey, becoming reddish where most fired, with dull weathered surface; grains of quartz are embedded in the paste.

E. 209. Vase, 9 ins. high; greatest diameter of body, 8 ins.; contracted at mouth to 2½ ins. Body ash-grey, with dull rough surface, weathered grey, and much exfoliated.

E. 210. Vase, 3½ ins. high; diameter of mouth, 8 ins. Body ash-grey, inclining to red, with dull blackish weathered surface. Found in the Twinney Saltings.

E. 211. Vase, 4½ ins. high; greatest diameter of body, 5½ ins.; contracted at mouth to 4 ins. Body slate-coloured, with dull black exfoliating surface.

E. 212. Vase, 4 ins. high; diameter of mouth, 5 ins. Body ash-grey, with black lustrous surface, showing lathe marks.

E. 213. Vase, 5 ins. high; inflated body, 3½ ins. in diameter, with broad rim. Paste slate-coloured, with lustrous black surface. Ornamented with three vertical zones of dots or studs, each band about 1 in. broad.

The character of ornamentation is similar to that shown in fig. 55 (p. 75).

E. 214. Vase, 6¼ ins. high; greatest diameter of body 4½ ins. Paste, slate-coloured, becoming reddish where more fired, with black lustrous surface, weathered to a pale grey colour. The inflated body ornamented with four vertical zones of studs, each band 1½ ins. broad.

E. 215. Vase, 6½ ins. high; greatest diameter of body, 5½ ins. Paste, pale slate-coloured, with black lustrous surface. The inflated body ornamented with three vertical zones of studs, each band 1½ in. broad.

E. 216. Vase, 6½ ins. high; greatest diameter, 4½ ins. Paste pale slate-coloured, with black lustrous surface. The inflated body ornamented with three vertical zones of studs; each band 1½ in. broad, consisting of 12 dots.

In numbers E. 214 to E. 216, the rows of dots are not horizontal. In E. 214 the dots in each row pass obliquely from right to left; whilst in E. 215 and E. 216 they pass from left to right.

E. 217. Vase, 4 ins. high; greatest diameter of body, 4 ins. Paste slate-coloured, with lustrous black surface. The globose body ornamented with five vertical zones of studs.

E. 218. Vase, 6 ins. high; greatest diameter of body, 3½ ins. Paste ash-coloured, with black lustrous surface; ornamented with two horizontal bands of incised herring-bone ornament, lower band being 1½ in. wide, and upper band ¾ in.

E. 219. VASE, 10¾ inches high; greatest diameter of body 5½ inches, contracted to a narrow neck. Paste slate-coloured, with black lustrous surface, showing horizontal lathe marks.

E. 220. VASE, 6 inches high; greatest diameter of body 7½ inches. Paste light slate colour, with dull black surface. The neck ornamented with three horizontal bands of rudely scratched marks.

E. 221. VASE, 6 inches high; greatest diameter of body 6½ inches. Paste pale slate-colour, with lustrous black surface. Body ornamented on lower half with four horizontal incised lines, on upper half with three horizontal bands of scratched lines.

E. 222. VASE, 4 inches high; diameter of mouth 3½ inches. Paste slate-coloured, with lustrous black surface, eroded. Flower-pot shape, with narrow rim round mouth.

E. 223. VASE, 5¾ inches high; greatest diameter 6 inches, contracted at mouth to 5 inches. Paste slate-coloured, with dull black surface; ornamented with band of scratched zig-zag lines.

This piece, like some others in this collection, has been distorted in the firing. Indeed most of the pieces of ware found on the site of the old Upchurch potteries were probably imperfect or spoilt vessels, cast away at the manufactory.

E. 224. VASE, 8½ inches high; greatest diameter 7½ inches, contracted at mouth to 5½ inches. Paste slate-coloured, with black lustrous surface.

This fine specimen which is almost perfect, has a plain globular body, exhibiting a brilliant black lustre, such as might be obtained by the application of black lead.

E. 225. VASE, 6 inches high; diameter of mouth 6½ inches. Paste pale slate-coloured; inclined to red where most fired, with black lustrous surface, partly dull by weathering. Body with horizontal ribs, showing lathe marks.

E. 226. VASE, 6 inches high; greatest diameter 6 inches, contracted at mouth to 4½ inches. Paste slate-coloured, with black surface, weathered dull. Body ornamented with scratched zig-zag lines.

E. 227. VASE, 5½ inches high; greatest diameter of mouth 5 inches, contracted at mouth to 4 inches. Paste slate-coloured, with black surface, showing well-preserved lustre. Body ornamented with studs or dots arranged in diamond patterns.

E. 228. VASE, 4 inches high; greatest diameter of body 4½ inches, contracted at mouth to 3½ inches. Paste dull red, with unglazed surface. Body ornamented with five bosses round the neck.

E. 229. CUP, 1½ inch high. Paste ash-grey, with dull surface.

E. 230. DISH, 6¾ inches in diameter; 2½ inches high. Paste slate-coloured, with dull black surface.

E. 231. DISH, 9 inches in diameter; 1¾ inches high. Paste slate-coloured, with lustrous black surface; bottom showing concentric circular lathe marks.

E. 232. DISH, 8 inches in diameter; 2½ inches high. Paste ash-coloured, inclining to red; coarse texture with included grains of sand. Bottom of dish ornamented with concentric circular ribs.

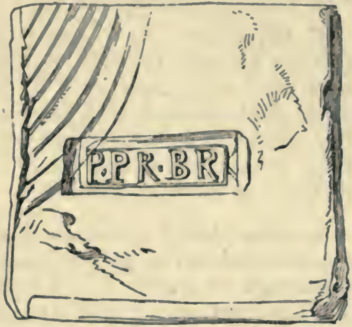
All the Upchurch pottery, Nos. E. 197 to E. 232, presented by J. Chisholm Gooden, Esq., 1871.

[The following specimens of Roman bricks and tiles are provisionally placed on a plinth at the foot of the balustrade, near to Pedestal Case No. 55, on the eastern side.]

E. 233. Roman Brick or Flange-Tile (fig. 79), square, 7¾ inches in the side. Body red; inscribed P·PR·BR. Found March 1850, in Queen Street, City, London.

Coll. Chaffers, No. 745.

Fig. 79.



E. 234. Roman Brick or Tile. Fragment with inscription P·BR·LON. Found in London.

Coll. Chaffers, No. 854.

The inscriptions on these tiles have been variously read. The "LON" certainly refers to London, but the "BR" may mean either the Province of Britain or the troops called Brittones. Thus the inscription on E. 234 may be read either P*roprætor* BRI*tanni* LON*dinii* or P*rima* (*cohors*) BR*ittonum* LON*dinii*. In like manner the inscription on E. 233 may mean either P*roprætor* PRO*vinciæ* BRI*tani*, or P*ræfectus* PR*ime* (*cohortis*) BR*ittonum*. The possible meanings of such inscriptions have been discussed by Mr. C. Roach Smith and Mr. T. Wright.

E. 235. Roman Brick or Tile; 18 inches by 12 inches. Found forming part of the wall of a hypocaust in Lower Thames Street, London, on the site of the New Coal Exchange.

Presented by T. B. Bunning, Esq., 1849.

E. 236. Roman Brick or Tile; double flanged; 16 inches by 12 inches. Body red. Found at Colchester, 1850.

E. 237. Roman Brick; 17 inches by 12 inches; from the Roman wall of Bustum tumulus No. 3, Rougham, Suffolk.

Presented by the late Rev. Prof. Henslow.

E. 238. a, b, & c. } Roman Roofing Tiles, found in London.

Coll. Chaffers, No. 717.

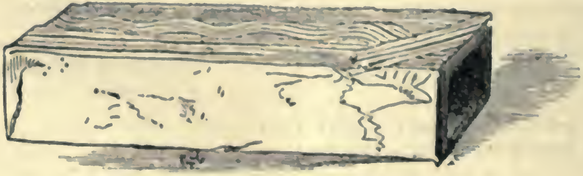
238*a*. is the *imbrex* or semi-circular ridge tile which rests upon the *tegulæ b* and *c*, or flat tiles, each with two flanges, so that the ridge tiles cover them in such a manner as to prevent the water from passing beneath. The ridge tile is wider at one end than at the other, in order that it may cover the next tile in succession under it, thus forming a ridge down the roof.

E. 239. Hollow Flue-Brick or Tile (fig. 80); 16½ inches long, 6½ inches high, and 4½ inches deep. Body red. Found, August 1846, in Duck's foot Lane, London.

Coll. Chaffers, No. 117.

These tiles were used by the Romans to convey heated air from the hypocausts. The upper and lower parts of the specimen are scored with waved and diagonal lines to secure adhesion of the cement or mortar.

Fig. 80.



E. 240. ROMAN DRAIN or WATER PIPE. Length, 24 inches; inside diameter, 1½ inches. Found in London, 1848.
Coll. Chaffers.

This specimen formed one of a series in which each pipe was joined to the next in succession by the insertion of a small portion of its end. A fragment of the adjoining pipe is seen cemented to this specimen.

Roman Pottery from the Rhine for Comparison with that found in England.

(Upper compartment of Case 2.)

As water carriage down the Rhine would have afforded easy means of establishing with Britain a trade in the pottery which was made at several important stations on that river, it has been thought desirable to obtain some illustrative specimens of Roman pottery from the Rhine for comparison with similar ware discovered in Britain. Those selected for this object have been chiefly obtained from the collections of M. Levens, of Cologne, and are stated to have been discovered in that city or its vicinity; but even should they not all have been found there, yet, coming certainly from the Rhenish districts, they are important for the purpose contemplated. They serve as excellent illustrative examples of this kind of pottery, as manufactured on the north of the Alps. Cologne (*Colonia Agrippina*) became a large and flourishing place after A.D. 51, when the Emperor Claudius planted a colony there, naming it after his wife, whose birthplace it was.* Hence the pottery either made or used there is valuable for comparison, particularly when we consider the facility of water carriage to and from that station. By means of the Rhine and Moselle, trade in pottery could easily have been carried on with Trèves or Trier (*Augusta Trevirorum*), once the capital of the Roman empire, while the mouths of the Rhine would afford ready means of communication with Britain. It seems probable that red lustrous Roman ware of Rhenish manufacture † was introduced into Britain.

E. 241. MOULD for a Roman "Samian" bowl; buff-coloured ware, impressed on the inside with festoon-and-tassel border, a Roman warrior, two soldiers in conflict, and an equestrian soldier, with rabbits, dogs, &c. below; stamped in the side with potter's mark, COBNERTVS·F. From the Rhine.

The ornaments have been punched on the inside of this mould from separate stamps, and the three principal subjects repeated four times each, thus forming a band of twelve figures. When the moist paste of a piece of ware was pressed into the mould the ornaments would appear on the exterior as bas-reliefs. The foot of the bowl would probably be formed from a separate piece and affixed subsequently.

E. 242. BOWL of Roman red lustrous ware, perfect, and consequently very rare. Height, 6 inches; diameter, 10 inches. Paste sealing-wax red; glaze lustrous; design (fig. 81), a soldier in armour, with sword and shield, engaged in combat with a retiarius, holding on his left arm a net with a sword, and in his right hand a three-pronged spear; also a draped figure presenting a palm branch to an emperor seated on a curule chair. Found at Cologne.

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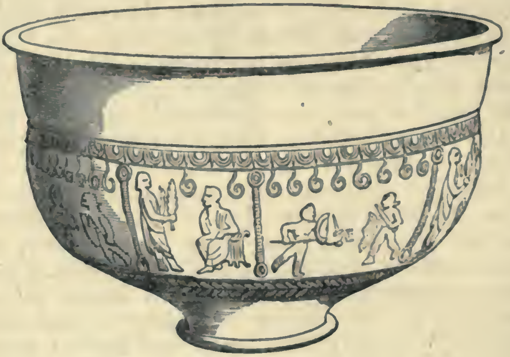
* This locality was first used as a Roman camp. It became the chief town of the Ubii (*Oppidum* or *Civitas Ubiorum*) after that tribe was removed thither from the right bank of the Rhine under Tiberius.

† This ware was certainly manufactured at Heilegenberg, about five leagues from Strasburg, where some of it was found in a Roman pottery kiln. The remains of Roman pottery kilns have been found in several localities near the Rhine, as at Rheinzabern (*Taberna Rheni*), four leagues from Lauterberg, where fifteen kilns were discovered within a small area; Ittenweiler, four leagues from Heilegenberg, &c.

Coll. Levens.

The manufacture and character of this bowl, and generally of the following specimens of the same ware from Cologne, closely agree with those of specimens of similiar pottery found in England, where there is little or no evidence of any of it having been made. Indeed it is not improbable that a considerable portion at least of this ware was derived from South Germany.

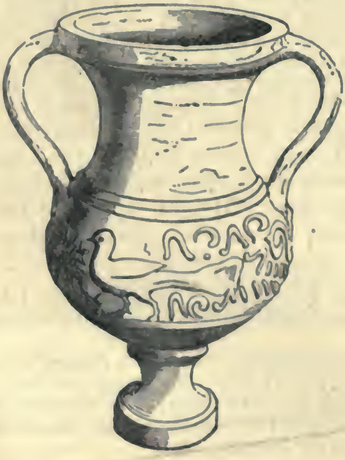
Fig. 81.



E. 243. Two-handled Vase of red ware (fig. 82), 7½ inches high, 5 inches greatest diameter. Round the widest part of the vase is a design laid on in slip or *barbotine* representing a peacock amid ivy leaves.

Coll. Levens.

Fig. 82.



This form does not appear to have been hitherto discovered in Britain. A Roman red ware vase of similar form, and with raised engobe or barbotine ornaments, found on the site of a pottery at Rheinzabern in 1804, and now in the museum at Sèvres, is figured by Brongniart and Riocreux in their *Desc. Meth. du Musée Céramique de Sèvres*, pl. IX., fig. 10.

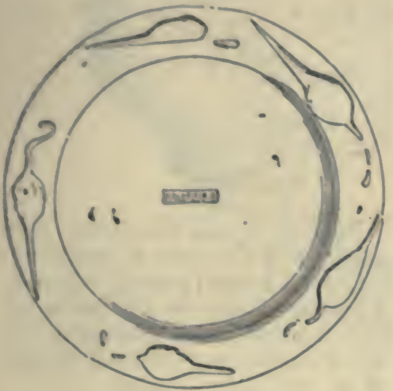
E. 244. Patera of red ware (fig. 83), 8 inches in diameter, with ivy leaves in relief laid on the border in slip or *barbotine* after the patera was turned on the lathe. Potter's mark, VRSVLVS.

Coll. Levens.

By comparing this perfect specimen with the fragments Nos. E. 24, 25, & 26, found in London, it will be observed that the ware, manufacture, and style of ornamentation are similar. A patera of pre-

cisely the same kind, found at the Palace of the Luxembourg, Paris, where moulds for the manufacture of ornamented red Roman ware were discovered, is figured in the *Desc. Meth. du Musée Céramique de Sèvres*, pl. IX., figs. 15*a* and *b*.

Fig. 83.



E. 245. Small Patera, of red lustrous ware, 6½ inches diameter. Glaze somewhat crazed in places, both above and beneath, showing its thin character. Potter's mark.

Coll. Levens.

E. 246. Small Patera, of red lustrous ware, 6¾ inches diameter. Potter's mark, LOCIRNI.

Coll. Levens.

E. 247. Shallow Patera, of red lustrous ware, 7 inches diameter, with perpendicular rim and potter's mark.

Coll. Levens.

E. 248. Shallow Patera, of red lustrous ware, 5½ inches diameter, with perpendicular rim; unmarked.

Coll. Levens.

E. 249. Acetabulum, of red lustrous ware; height, 2½ inches diameter, 4½ inches. Potter's mark, OF·CAR.

Compare with Roman acetabula found in Britain, Nos. E. 17 & 18.

E. 250. Cup of peculiar shape, in red lustrous ware; height. 2½ inches; diameter, 4½ inches. Potter's mark.

Coll. Levens.

E. 251. Small Vase; height, 5¾ inches; greatest diameter, 4½ inches. Body red, almost equal in texture to the finer kinds of the red lustrous ware. Glaze red at base, where it has apparently been plunged into some protecting substance when fired; brown where it has been more exposed to heat. Ornament in the upper portion partly as if milled and marked in a lathe, after which perpendicular lines were impressed by a point.

Coll. Levens.

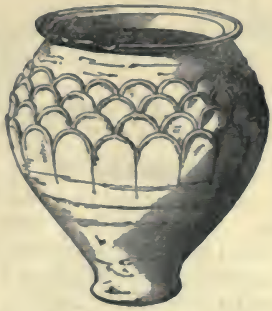
Compare, as to red base and brown upper portion of the glaze, with No. E. 102 found at Winchester.

E. 252. Vase (fig. 84), 5¾ inches high, 5 inches in greatest diameter. Body white with red glaze and raised full pattern.

Coll. Levens.

Compare, as regards the imbricated scales or mode in which the pieces in relief partially overlap each other, with No. E. 88, found at Castor.

Fig. 84.



E. 253. Vase, 4¾ inches high, 3½ inches in greatest diameter. Body red, but much inferior to the red lustrous ware; glaze red.

Coll. Levens.

Compare with Nos. E. 94 and E. 142 found at Castor.

E. 254. Vase, 4½ inches high, 3½ inches in greatest diameter. Body red and somewhat coarse; glaze partly red and partly black, according to amount of firing; scroll ornament in white slip.

Coll. Levens.

E. 255. Vase, 4 inches high, 3 inches in greatest diameter. Paste reddish, with black glaze; ornamented in white engobe with inscription round the body, ·V·I·T·A·. From Cologne.

Coll. Cato, 1874.

The character of the inscriptions on this ware, such as *Vita*, *Vinum*, *Bibe*, *Reple*, *Amo*, *Ave*, *Felix*, &c., show that the cups were used for convivial purposes.

E. 256. Patera, 10½ inches in diameter. Paste grey with black glaze. Potter's mark stamped in centre, indistinct. From Cologne.

Coll. Cato, 1874.

E. 257. Patera, 8½ inches in diameter, resembling in general character some of the Roman red lustrous ware. Body grayish white with glaze black, the whole well fired. Potter's mark, inside a rayed circle, VOCARAP.

Coll. Levens.

E. 258. Cup, 2 inches high, and 4¼ inches in diameter. Body white, light brown outside; ornamented with imbricated leaves in relief.

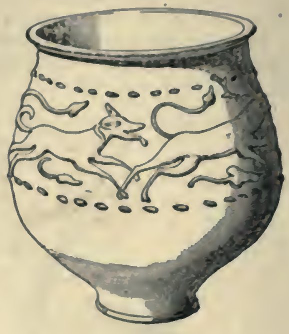
Coll. Levens.

E. 259. Vase (fig. 85), 4¼ inches high, and 4¼ inches in greatest diameter. Body whitish, with dark metalloid glaze; ornamented in slip or barbotine with design of hounds chasing a deer and a hare.

Coll. Levens.

Compare with Nos. E. 152 and 163 and several other pieces found at Castor. This kind of ware may have been manufactured by the Romans in many localities north of the Alps. A fragment representing a hunting scene, from the remains of a Roman pottery at Rheinzabern (*Taberna Rheni*), is figured by Brongniart in his *Traité des Arts Céramiques*, pl. XXIX., fig. 1.

Fig. 85.



E. 260. Vase, of similar ware and general character of ornament; height, 5¾ inches; greatest diameter, 5 inches. Design in slip or barbotine, dog hunting a hare, with ivy leaves similar to those upon the rim of the patera, No. E. 244.

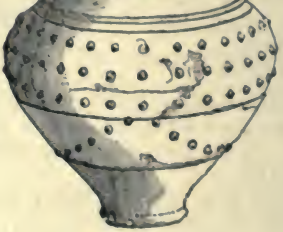
Coll. Levens.

E. 261. Vase (fig. 86), 4½ inches in height, and 5¼ inches in greatest diameter. Body gray-white, with black glaze; ornamented with bosses in slip or barbotine, of similar body to the ware, laid on after turning the piece and before glazing and firing.

Coll. Levens.

Compare with Nos. E. 158 159, from Castor, in illustration of the mode of applying the dotted ornamentation.

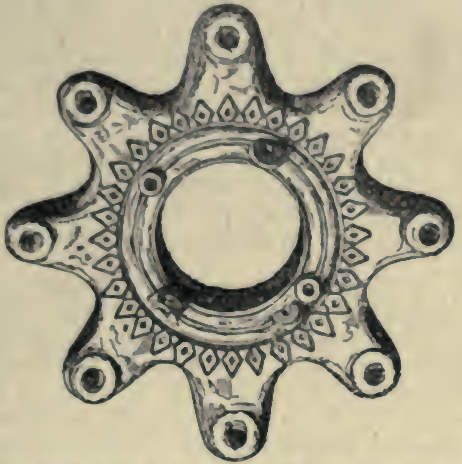
Fig. 86.



E. 262. **Lamp**, with eight nozzles or burners (fig. 87); diameter, 7½ inches; formed for suspension by the aid of three loops placed on an inner circle. Body white with red coating.

Coll. Levens.

Fig. 87.



E. 263. **Lamp**, oval shape with flat top, having a bust of Jupiter, with an eagle, in bas-relief. Body buff coloured, with brown metalloid glaze.

Aretine Ware.

E. 264. **Hemispherical Cup**, of Roman red lustrous ware, from Arezzo; height, 2¼ inches; diameter, 5 inches. Body red, with dull red coating, not very lustrous. Ornamentation in the higher style of art employed for this kind of ware in Roman Italy; side view exhibited in fig. 88; design of the base in fig. 89.

Coll. Chaffers, No. 1,028.

Aretium, the modern Arezzo, in Tuscany, was famous for its pottery. Pliny speaks of Aretine ware as being of a superior kind (*Nat. Hist., Lib.* xxxv., *cap.* 12). Dr. Fabroni, in his *Storia degli Antichi Vasi fittili Aretini* (Arezzo, 1841), refers to the various ancient and modern authors who have mentioned the ware, and gives illustrations justifying the high character assigned to it.

Fig. 88.

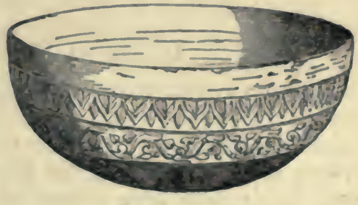
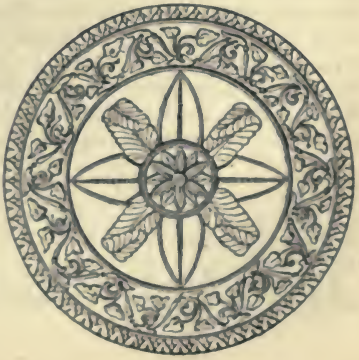


Fig. 89.



ANGLO-SAXON POTTERY.

After the Romans quitted Britain towards the middle of the fifth century, the pottery which they left behind appears to have continued in use among the inhabitants of the country, as is shown by the occurrence of fragments of Roman pottery, including the red lustrous ware, in graves considered to be of early Anglo-Saxon date. There may indeed be some difficulty concerning that kind of pottery which was certainly manufactured by the Romans in Britain, since it may fairly be supposed that potteries would be continued for a time at many of the former Roman sites, and that the forms given to the ware would also for a while be somewhat similar. With the vessels of the red lustrous ware, however, the evidence is more definite, since there is little or no reason to suppose that this ware was manufactured in Britain. Even during the Roman occupation, it was of sufficient value to be mended by rivetting, as testified by many specimens in this collection.

As the Anglo-Saxons used food vessels which were generally made of either metal or wood, especially ash-wood, while their drinking cups were either of horn or of glass, it seems likely that there was little need of pottery for ordinary domestic purposes. Most of the specimens attributed to the Anglo-Saxons are indeed in the form of cinerary urns, commonly made of clay, which exhibits no marks of much preparation before use, and appears to have been generally of such a quality as would not require much care in the selection. This pottery is frequently ornamented with impressed zig-zag and other designs, some by no means deficient in general effect, and corresponding with that which has been termed Germanic and which extended into Gaul.* The pottery itself has rarely been highly fired. The Museum at present (1876) possesses no examples of Anglo-Saxon pottery.

MEDIÆVAL POTTERY USED IN BRITAIN.

[See specimens in Wall Cases I. to V.; top shelf.]

However difficult it may be to feel assured as to the pottery used in Britain much anterior to the Norman Conquest (1066), certain earthenware vessels have been discovered in situations, and under circumstances, which point to their having been used in this country for ordinary domestic wants in the times commonly termed mediæval. The forms of these early examples are usually deficient in elegance, although now and then a specimen may present to some extent the designs of better periods. Mr. Chaffers, in his notes "On Mediæval Earthenware Vessels," † figures some of these forms taken from Norman manuscripts for comparison with vessels in his own collection, many of which have now passed into the possession of this Museum. Nearly all those specimens which may be fairly considered to represent British mediæval manufacture offer but little that can be termed tasteful. At the same time ordinary pitchers and cups seem to have been employed at the tables of persons of some importance, and, indeed, were thought worthy of notice in the inventories of even royal households. Thus, Chaffers quotes the following entry in the payments of the executors of Eleanor, queen of Edward I., in the thirteenth century: “Item, Julianæ *La Potere*, pro CCC. *picheriis* viij*s*. vi*d*.” And again in the same document we find: “Item Johanni *Le* “ *Squeler*,* pro M^{le}. et D. discis, tot patellis, tot salseriis, et CCCC. “ *chiphis* xlij*s*.”

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* Figures and descriptions of this kind of pottery will be found in Brongniart's *Traité des Arts Céramiques*, pl. XXVI., XXVII.; Wright's *Celt, Roman, and Saxon;* and other works.

† "Journal of the Archæological Association," vol. i. p. 24. See also "Marks and Monograms on Pottery and Porcelain," 3rd ed., 1870, p. 26 *et seq.*

While it is probable that earthen vessels of common manufacture continued in use in England even in royal † and important noble ‡ households, down to the fifteenth and sixteenth centuries, such vessels being, for the most part, made in this country, there is yet much reason to suppose that the German and Flemish wares found their way into those households, and that the earthen pots mentioned as “garnished with silver” were often of this better kind of manufacture. Of the German stone-ware, that of Cologne was the most celebrated, and was exported to various countries, including England. It was in high repute in the sixteenth century. The Flemish ware, commonly known as *Grès de Flandres*, was also in great esteem from about 1540 to 1620. It is not improbable, too, that occasionally some pieces of the Nuremberg stone-ware, so famous in its time, may have found its way into England. Most, if not all, of the drinking vessels known as “Gray-beards” were imported from Germany.

F. 1. Pilgrim's Bottle, with large globular body compressed laterally (fig. 90). Height 10 inches; greatest width, 8½ inches. Body cream coloured, unglazed. Found in Cannon Street, London, 1851.
Coll. Chaffers.

The two sides of this piece have been turned separately and joined together in the plane of the two handles. The form of the vessel is somewhat similar to that of a flattened Roman amphora, such as is represented in fig. 62 (p. 78).

F. 2. Conical Jug, supposed early English manufacture. Height, 11 inches; diameter at base, which is the widest part, 4½ inches. Somewhat coarse cream-coloured body, unglazed; upper part broken. Found in Lad Lane, City, 1843.

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* The *squeler* was a seller of *esqueles*, from the French *écuelle*, a porringer, dish, or basin; whence also our word *scullery*.

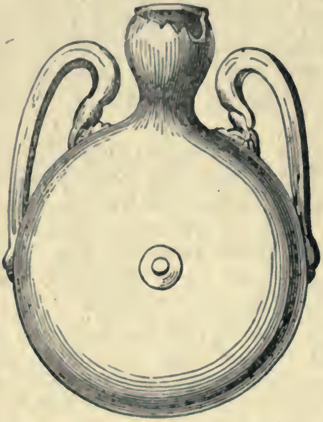
† In the regulations for the household of Edward IV. (latter part of fifteenth century) among the orders for the “pitcher-house,” it is directed that “the butler *for the monthe* delyverythe nightly, at the buttery barre for the kynge for *all nyght*; with the ale in *new ashen cuppes*, and two other for the watche, which of ryghte should be delyveryd againe at the cupborde in the mornynge, *with the pottes* to serve men of worshippe in the halle.” (*Liber Niger*, p. 78.)

‡ Mr. Chaffers points to the *Household Book* of the Earl of Northumberland (1512) as showing the common use of earthen pots at the tables of his dependants, adverting to the order that “Whereas *erthyn potts* be bought, that *ledder potts* be bought for them for serving of lyveries and meallys in my lord's hous.”

An election feast of the Drapers' Company, in 1552, is quoted, at which earthen pots were used for ale and wine, gilt cups being employed “for red wine and ipocras.” So late as 1663, Pepys mentions, in his *Diary*, drinking out of “earthen pitchers and wooden dishes,” when sitting at the merchant-strangers' table at a Lord Mayor's feast.

Coll. Chaffers.

Fig. 90.



F. 3. Smaller Conical Jug. Height, 6 inches; diameter at base, 2½ inches. Body finer and more red than that of No. F. 2; unglazed; top broken. Probably of the same general date. Found in Cannon Street, City, 1848.

Coll. Chaffers.

F. 4 & 5. Pair of Jugs, Norman shape; coarse brown unglazed body, showing marks of the wheel; base indented. Height of No. F. 4, 10½ inches; greatest diameter, 3 inches; height of No. F. 5, 10 inches; greatest diameter, 3½ inches. Found in the City of London.

Presented by Sir T. W. Holbourne, 1867.

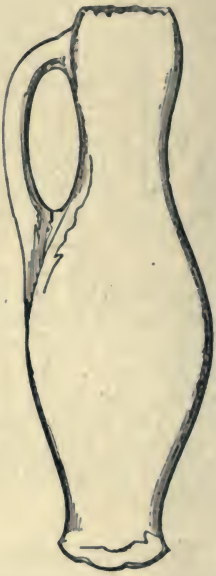
F. 6. Early English Jug, Norman shape (fig. 91). Height, 16½ inches; greatest diameter, 6½ inches. Body light coloured, partially coated with a yellow glaze. Found in Cannon Street, City, 1853.

Coll. Chaffers.

F. 7. Similar Jug, with neck and handle much broken. Found in 1852, under the foundation of an old house in Fleet Street, opposite St. Bride's Church.

Presented by Mrs. J. O. Westwood, 1856.

Fig. 91.



F. 8. Small Jug, Norman shape. Height, 6 inches; greatest diameter, 3 inches. Cream-coloured body exhibiting traces of a reddish-brown glaze, especially on the handle; base indented.

F. 9. Small Jug, of similar shape. Height, 5 inches; greatest diameter, 2 inches. Cream-coloured body, partially glazed, and ornamented with three circular medallions containing Scripture subjects in low relief. Found in Cannon Street, City, 1851.

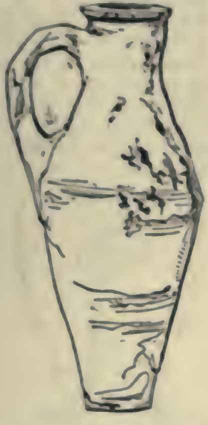
F. 10. Jug (fig. 92). Height, 8 inches; diameter above centre, 4 inches. Cream-coloured body; upper part of outside coated with transparent glaze, with dark green spots. Found at London Wall, May 1844.

Coll. Chaffers.

A vessel of similar form was discovered at a depth of thirteen feet in Friday Street, City, London, associated with pennies of Henry III. and Edward I. Its date may, therefore, be referred to the latter part of the thirteenth century, but the form was probably not limited to this period.

(See *Mr. C. Roach Smith's Catalogue*, p. 114.)

Fig. 92.



F. 11. Small Jug, with upper part of outside coated with dark mottled green glaze. Height, 4¾ inches; greatest diameter, 4½ inches. Found in London.

Presented by C. Roach Smith, Esq.

It will be noted that in many of these early vessels the glaze is not applied to the entire surface, but is confined to the inside of the lip and to the upper part of the outside where liquid would be most likely to be spilt.

F. 12. Water Pitcher, supposed early English. Height, 10 inches; greatest diameter, 9 inches. Light reddish-brown body, partially covered on the outside with green glaze. Base ornamented with numerous indentations, apparently punched in by the fingers. Broken at top and on one side. Found in Queen Street, Cheapside, 1842.

Coll. Chaffers.

Upon analysis under Dr. Hofmann, at the chemical laboratory of this Museum, the green glaze on this vessel was found to be a silicate of the protoxide of lead, coloured by a silicate of the protoxides of iron and of copper. Its composition is as follows:

Silica - - -	43·04
Protoxide of lead -	48·34
Protoxide of iron -	3·31
Protoxide of copper -	1·31
Lime - - -	1·03
Alumina - - -	2·65
Potash and soda -	0·64
	100·32

This glaze was probably produced by dusting the vessels, before firing, with a mixture of powdered galena, or sulphide of lead, and iron and copper scales, when metallic silicates would be formed by the silica derived from the body; while the lime, alumina, and alkalies would also be obtained from the same source.

It is interesting to note that vessels having a similar green glaze have been found at considerable depths below the surface, sometimes associated with Roman relics.

F. 13. Small Jug. Height, 4¾ inches; greatest diameter, 3½ inches. Body resembling that of last, and upper part coated with similar green glaze. Found in George Yard, Lombard Street, August 1844.

Coll. Chaffers.

F. 14. Jug. Height, 9 inches; greatest diameter, 3½ inches. Body resembling the last; upper part coated with similar green glaze. Found in George Yard, Lombard Street.

Coll. Chaffers.

F. 15. Small Vessel. Height, 3½ inches; greatest diameter, 2¾ inches. Cream-coloured body, the upper part coated with mottled green glaze.

F. 16. Fragment of Cup. Height, 2 inches; diameter, 5 inches. Pale brown body, coated inside and partly outside with mottled green glaze. Found in Moorfields, London, 1865.

Coll. Cato.

F. 17. Fragment of Dish. Diameter, 8½ inches. Pale brown body coated on inside with mottled green glaze; three concentric circular ribs run round the inside, dividing the dish into three channels surrounding a central cup. Found in Moorfields, London, July 1866.

Coll. Cato.

F. 18. Earthenware Money-box, or thrift-box, in shape of a stoppered bottle, with narrow neck and wide body, with vertical slit in the side for introduction of coins. Coated with mottled green glaze. Found in Paternoster Row, London.

Presented by Sir T. W. Holbourne.

Many allusions to these earthenware depositories for savings may be found in the old writers. Thus Mr. Roach Smith quotes the *Mass of the Microcosme, or a Morall Description of Man*, by H. Browne, 1642, in which the author compares a covetous person to "the *Christmas earthen* " *boxes* of the apprentices, apt to take in " money, but he restores none till he be " broken, like a potter's vessell, into many " shares."

F. 19. Puzzle Jug. Height, 6½ inches; greatest diameter, 3½ inches. Body, red, coated with green glaze, partially worn off. Dated in relief, 1571.

Presented by Sir T. W. Holbourne.

F. 20. Small Jug, Height, 7½ inches; greatest diameter, 5½ inches. Body, red, with pattern in white pipeclay completed by brownish glaze, partially laid on. Base pressed with three fingers in three separate places; upper lip also finger-pressed in two places. Found in Cannon Street, City, 1848.

Coll. Chaffers.

F. 21. Fragment of Pottery, representing an arm, probably part of the decoration of a jug; coated with green glaze. Found in the King's Head Yard, Leadenhall Street, London, 1847.

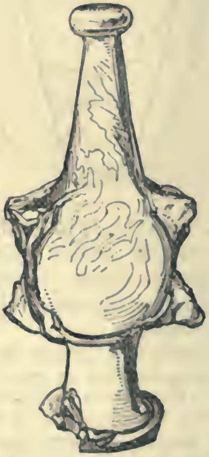
Coll. Chaffers.

F. 22. Early English Costrel, (fig. 93.) Height 10 inches, breadth 5½ inches, measured across projections, of which there are two on each side in form of lion's heads, and perforated for passage of a cord or strap used in suspending the vessel from the neck in the manner of a "pilgrim's bottle." Body red, glazed in a marble pattern of mixed red and white. Found in London, August 1850.

Coll. Chaffers.

The term *Costrel*, formerly written *Costret*,* is derived from the old French *Costret*, a name given in allusion to the vessel being carried at the *side*. Fig. 93 represents a front view of this bottle, and a side view was given by Mr. Chaffers in the Journal of the Archæological Association, vol. v. p. 33.

Fig. 93.



F. 23. Child's Rattle, in form of a knight's head helmeted. Coarse reddish earthenware body, with coloured glaze.

Coll. Chaffers.

F. 24. Grey-beard. Height, 8½ inches; greatest diameter, 4¾ inches. Brown glazed stone-ware, with lion rampant in relief upon the belly, and the usual bearded mask upon the neck.

Presented by Sir T. W. Holbourne.

The "gray-beard" or "long-beard" was a vessel much used in ale-houses in the sixteenth and seventeenth centuries. It was a bottle or jug having upon the neck or beneath the spout a rudely executed mask with a conspicuous beard. Such vessels were known also as *Bellarmines*, a name sarcastically given to them in reference to Cardinal Robert Bellarmin, who rendered himself obnoxious by his opposition to the progress of the reformed religion in the Low Countries. Allusions to these jugs are to be found in many poems and plays of the period.

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* Lansdowne MS. 560, fol. 45.

F. 25. Gray Beard. Height, 10½ inches; greatest diameter, 5½ inches. Pale grey stone-ware, with mottled brown surface, ornamented with large rossette in relief upon the belly, and with bearded mask upon the neck. Found in excavations under the old residence of the Provost and Fellows of Eton College, King Street, Westminster, 1874.

Presented by James Hendrey, Esq.

F. 26. Gray-beard, with neck and handle broken. Grey stoneware, with dark mottled brown surface; ornamented with three stamped medallions, each containing a hand holding a tankard, with initials E.B., date 1601, and inscription PVTGNEVT. Found in excavations in Moorfields, May 1866.

Coll. Cato.

F. 27. Mug in stone-ware, with yellowish brown glaze. Height, 5 inches; diameter of mouth, 2 inches. Ornamented in relief with three medallions, containing heads of a prince and two princesses. Found in Railway Works, Clerkenwell, May 1867.

Coll. Cato.

This is probably a piece of German stoneware. The base is broken.

F. 28. Small Bottle-shaped Jug. Height, 3 inches; greatest diameter, 2½ inches. Body cream coloured, completely coated with glaze. Found in Cannon Street, City, 1850.

Coll. Chaffers.

F. 29. Bottle-shaped Jug. Height, 5½ inches; greatest diameter, 4 inches. Light ash-coloured body, completely covered with a slate-coloured glaze. Found in Cock Lane, Smithfield; April 1844.

Coll. Chaffers.

F. 30. Globular Vase, on foot, with large mouth and three small necks. Height, 8 inches, greatest diameter of body, 6 inches. Light brown paste, coated with fine cream-coloured glaze. Found in 1842, at a depth of 17 feet below the surface, in an excavation for a sewer in Leman Street, Goodman's Fields, Whitechapel.

F. 31. Jug in coarse brown ware. Height, 9 inches; diameter at widest part, 5½ inches. Found in the early part of the present century, during excavations at Stoke-upon-Trent, Staffordshire.

Presented by W. H. Goss, Esq.

Staffordshire Pottery and Porcelain.

Though the district in Staffordshire known as *The Potteries* has long been famous for the production of ceramic wares, it is somewhat difficult to trace the early history of the district in connexion with this manufacture. It has, indeed, been supposed that its clays were made into pottery by the Roman occupants of that part of Britain; but although this supposition is highly probable, it does not seem to be supported by any positive evidence. Coarse ware appears to have been manufactured in the district certainly as early as the year 1500, if not indeed earlier. According to Dr. Shaw "there exists documents which imply that during

“ *many centuries* considerable quantities of common culinary articles were “ manufactured of red, brown, and mottled pottery, easily made from a “ mixture of different clays found in most parts of the district.”* It is to the abundance and variety of these clays, combined with the facility of obtaining coal, when coal came to be employed for the manufacture, that we may attribute the early progress of these potteries. In fact the geological character of the district is one highly favourable to the establishment of such manufactures ; and though the materials now employed for the earthenware and porcelain so abundantly produced in the district may be derived from other localities, yet its supply of coal and of refractory clays for the firebricks required in the works, the actual establishment of these works, and the skilled labour at hand, still make it the chief locality for the ceramic manufactures of this country.

Among the productions of the district that of *butter pots* appears to have been undertaken at an early date. In 1661 it was of sufficient importance to attract the attention of Government, the potters of Burslem being then compelled by Act of Parliament to make their pots of such a size as to hold 14 lbs. of butter, and so hard as not to imbibe moisture by which the butter might appear of greater weight than was actually sold.

The clays used in the seventeenth century appear to have all come from the neighbourhood, and for the most part from the coal measures. Fine sand, for admixture with the clays, was obtained from the hilly part of Baddeley Hedge and Mole Cop. Plot in his *History of Staffordshire*, published in 1686, presents us with a valuable statement as to the clays then used, and the method of manufacture adopted at that time, including the mode of glazing.†

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* “History of the Staffordshire Potteries,” by Dr. Simeon Shaw, Hanley, 1829, p. 97.

† The following is Plot's account. After mentioning the Amblecot clay as the best, and as used for melting pots at the glasshouses of Amblecot and elsewhere, he continues: —“ Other *potters' clays* for the more common wares, there are at many other places, particularly at *Horsley Heath* in the parish of *Tipton ;* in *Monway Field* above mentioned, where there are two sorts gotten, one of a *yellowish* colour mixed with *white*, the other *blewish ;* the former stiff and weighty, the other more friable and light, which, mixt together, work better than apart. Of these they make divers sorts of *vessels* at *Wednesbury*, which they paint with *slip*, made of a *reddish* sort of *earth* gotten at *Tipton*. But the greatest *pottery* they have in this *county* is carried on at *Burslem*, near *Newcastle* under *Lyme*, where for making their severall sorts of *pots*, they have as many different sorts of *clay*, which they dig round about the *towne*, all within half a mile's distance, the best being found nearest the *coale*, and are distinguish't by their *colours* and *uses* as followeth:—

“ 1. *Bottle clay*, of a bright whitish streaked yellow colour.
“ 2. *Hard fire clay* of a duller whitish colour, and fuller intersperst with a dark yellow, which they use for their *black wares* being mix't with the
“ 3. *Red blending clay*, which is of a dirty red colour.
“ 4. *White clay*, so called it seems, though of a blewish colour, and used for making yellow-colour'd *ware*, because yellow is the *lightest* colour they make any *ware* of.

“ All which they call *throwing* clays, because they are of a closer texture, and will work on the *wheel* ; which none of the three other *clays* they call *slips*, will any of them doe, being of looser and more friable natures ; these mixed with water they make into a consistence thinner than a *syrup*, so that being put into a *bucket* it will run out through

Up to the year 1680 the glaze employed appears to have been plumbiferous, the ware being coated by a glass formed of silicate of lead. Galena, the ordinary ore of lead (sulphide of lead), obtained from the Derbyshire mines, was dusted in a pulverized state upon the unbaked ware through a coarse cloth, and a silicate formed by its action on the silica of

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a *quill*, this they call *slip*, and is the substance wherewith they *paint* their *wares*; whereof the

" 1. Sort is called the *orange slip*, which before it is work't, it is of a greyish colour mixt which (*sic*) orange balls, and gives the ware (when annealed) an *orange* colour.

" 2. The white *slip*, this before it is work't, is of a dark blewish colour, yet makes the ware yellow, which being the *lightest* colour they make any of, they call it (as they did the *clay* above) the *white slip*.

" 3. The *red slip*, made of a dirty reddish clay, which gives *wares* a black colour.

" Neither of which *clays* or *slips* must have any *gravel* or *sand* in them. Upon this account, before it be brought to the *wheel* they prepare the *clay* by steeping it in water in a square pit, till it be of a due consistence; then they bring it to their *beating board*, where with a long *spatula* they beat it till it be well mix't; then being first made into great *squarish* rolls, it is brought to the wageing board, where it is slit into flat thin pieces with a *wire*, and the least stones or gravel pick't out of it. This being done, they *wage* it, *i.e.*, knead or mould it like *bread*, and make it into round *balls* proportionable to their *work*, and then 'tis brought to the wheel and formed as the *workman* sees good.

" When the *potter* has wrought the clay either into *hollow* or *flat ware*, they are set abroad to dry in fair weather, but by the fire in foule, turning them as they see occasion, which they call *whaving*. When they are dry they *stouk* them, *i.e.*, put *ears* and *handles* to such *vessels* as require them. These also being dry, they then *slip* or *paint* them with their several sorts of *slip*, according as they design their *work*, when the first *slip* is dry, laying on the *others* at their leasure, the *orange slip* makeing the ground, and the *white* and *red*, the *paint*; which two colours they break with a wire *brush*, much after the manner they doe when they *marble* paper, and then *cloud* them with a *pensil* when they are pretty dry. After the *vessels* are painted, they *lead* them, with that sort of *lead ore* they call *Smithum*, which is the smallest *ore* of all beaten into dust, finely sifted and strewed upon them, which gives them the *gloss*, but not the colour; all the *colours* being chiefly given by the variety of *slips*, except the *Motley colour*, which is procured by blending the *lead* with *manganese*, by the *workmen* call'd *Magnus*. But when they have a mind to shew the utmost of their *skill* in giving their *wares* a fairer *gloss* than ordinary, they *lead* them with lead *calcined* into powder, which they also sift fine and strew upon them as before, which not only gives them a higher *gloss*, but goes much further too in their work, than *lead ore* would have done.

" After this is done, they are carried to the *oven*, which is ordinarily above eight foot high, and about six foot wide, of a round copped forme, were they are placed one upon another from the bottom to the top. If they be *ordinary wares* such as *cylindricall butter pots*, &c., that are not *leaded*, they are exposed to the *naked* fire, and so is all their *flat ware* though it be *leaded*, haveing only *parting shards*, *i.e.*, thin bits of old pots put between them, to keep them from *sticking* together. But if they be *leaded hollow wares* they doe not expose them to the *naked* fire, but put them in *shragers*, that is, in coarse metall'd pots, made of *marle* (not *clay*) of divers formes according as their *wares* require, in which they put commonly three pieces of clay called *Bobbs* for the ware to stand on, to keep it from sticking to the *shragers*; as they put them in the *shragers* to keep them from sticking to one another (which they would certainly otherwise doe by reason of the *leading*) and to preserve them from the vehemence of the *fire*, which else would *melt* them doune, or at least *warp* them. In 24 hours an *oven* of *pots* will be burnt, then they let the *fire* go out by degrees, which in 10 hours more will be perfectly done, and then they draw them for *sale*, which is chiefly to the poor *crate men*, who carry them at their *backs* all over the *countrey*, to whom they reckon them by the piece, *i.e.*, *quart* in *hollow ware*, so that six pottle, or three gallon *bottles* make a *dosen*, and so more or less to a dosen as they are of greater or lesser content. The *flat wares* are also reckon'd by *pieces* and *dosens*, but not (as the *hollow*) according to their *content*, but their different *bredths*."

the body of the ware during firing. Glazing by means of salt is said to have been discovered by accident in 1680.*

"Crouch ware" was first made by the Burslem potters in 1690. According to Dr. Shaw, common brick clay and sand from Mole Cop were first used, and subsequently Can marl and this sand, some persons employing with the sand dark-gray clay from the coal pits. Salt glaze was used for this ware, some of the principal potters adding a pint of red lead to each bushel of salt.† Around the ovens employed for firing the crouch ware, there was a scaffold on which a fireman stood to cast in the salt. The vapour arising from the salt glazing on this and other ware is described, about the end of the seventeenth century, as being so considerable as to produce a dense white cloud, sometimes so thick as to cause persons to run against each other in the streets.

At that time the ovens are described "as always adapted to the quantity "of articles made during each week; and no manufacturer of that period "fired more than one oven-full weekly, commencing on the Thursday night, "and finishing about mid-day on Saturday. There were about 22 ovens "then in Burslem and its vicinity, each with eight mouths at equal "distances."

Prior to the use of the salt glaze and Bideford clay (first known, as well as the Dorset clays, by the name of *Chester clays*, because imported to that city, and afterwards sent to the Staffordshire potteries) the clays used at Burslem and the coals for the twenty-two ovens then in work were taken from the sides of the adjacent lanes.

On the Revolution of 1688, two brothers, John Philip and David Elers descended from an ancient German family of distinction, accompanied the Prince of Orange to England, and settled in Staffordshire as potters.

Finding at Bradwell wood, about two miles from Burslem, an ochreous clay well suited to the manufacture of red pottery, they established themselves there and erected a pot-work for the production of their ware, while they hired an establishment for the sale of their products at Dimsdale, also near Burslem. One of their objects seems to have been to manufacture a red ware similar to that of Japan, it being desirable at that time to imitate oriental porcelain and pottery. By careful selection and preparation of their clays, they accomplished this object most successfully, and succeeded in producing a finer kind of ware than any that had previously been made in this country. From the character of the specimens preserved to us, it may be inferred that they were men of considerable taste and still; an inference corroborated by the testimony of contemporary writers. Thus, Dr. Martin Lister, in a note appended to some letters published in 1693, referring to the soft red iron-ore or hæmatite of Lancashire, alludes to Elers' ware in the following eulogistic terms:—"I "have this to add, that this clay *Hæmatites* is as good, if not better, than

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* The account given is that in 1680 at Stanley Farn, near Mr. Palmer's pottery, at Bagnall, the servant of Mr. Joseph Yates was boiling salt in water to be used in curing pork, and that during her temporary absence the mixture boiled up, and ran over the sides of the earthen pot containing the brine. The earthen pot became red hot, and when cool was found to be glazed. Mr. Palmer availed himself of the accident, glazing common brown ware by means of salt, and in this he was soon followed by other manufacturers. See Shaw's "History of the Staffordshire Potteries," p. 108.

† "History of the Staffordshire Potteries," p. 110.

"that which is brought from the *East Indies.* Witness the *Tea Pots* "now to be sold at the potters in the *Poultry* in *Cheap-side*, which not "only for art, but for beautiful colour too, are far beyond any we have "from *China.* These are made of the *English Hæmatites* in *Stafford-* "*shire*, as I take it, by two *Dutch-men*, incomparable artists."*

In addition to this fine red ware, the Elers manufactured a black body, from a mixture of clay and ironstone, which is said to have been the precursor of Wedgwood's famous "Egyptian ware;" and it is believed that they also produced salt-glazed ware. Great secrecy was maintained in all the details of manufacture; it is said, indeed, that an idiot turned the thrower's wheel, and that the most ignorant labourers were employed for those parts of the work which were not executed by the Elers themselves. Dr. Shaw mentions† that Twyford was supposed to be the first by pretending carelessness, to have entered the works and found out their processes. Eventually, Mr. Astbury,‡ by feigning idiocy and obtaining employment in the works, learned their secrets, and made red ware,§ being soon followed in this business by other potters. From the competition thus arising, and from annoyance by the other manufacturers of the district, the Elers discontinued their works, and, according to Dr. Shaw, removed in 1710 to Lambeth or Chelsea, where they connected their work with "the "glass manufacture established in 1676 by Venetians, under the auspices "of the Duke of Buckingham."‖

Astbury, after establishing his red-ware works, employed Bideford pipeclay,¶ at first only for the interior of vessels, but afterwards mixed with Shelton marl for the body, and thus produced a "white stone-ware." The discovery in 1720 of the use of pounded flint as a constituent of the body of earthenware, was the cause of great improvements in the manufacture. Some few years later a further advance was made by the *sun pans*, or tanks in which the clay was deposited to become fit for use, being superseded by the use of the *slip-kiln*, in which the clays were subjected to artificial heat.**

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* "Extracts of some letters from Mr. John Sturdie, of Lancashire, concerning iron ore; and more particularly of the Hæmatites, wrought into iron at Milthorp Forge in that County. Communicated by Dr. Martin Lister, F.R.S." Philosophical Transactions, vol. xvii., 1693, p. 695. Note on p. 699, dated May 1, 93.

† "History of the Staffordshire Potteries," p. 118.

‡ Mr. Astbury died in 1743, at the age of 65 years.

§ Dr. Shaw mentions that Twyford and Astbury carried on a manufactory together, making red porcelain (?) and white pottery, and employing a salt glaze.

‖ "Chemistry of Pottery," 1837, p. 411.

¶ It is stated in Lyson's *Magna Britannia* (Devonshire, p. ccxci., published in 1822) that this, "pipeclay was formerly dug in great abundance at Weare Gifford, and "in the parishes of Peter's Merland and Petrockstow. It was sent coastwise, and by "canals to the potteries in Staffordshire. The pits in the last-mentioned places have "not been worked for twenty years." The ware made of this clay and flint was considered liable to crack when highly fired or suddenly heated. ("Hist. of Staff. Potteries," p. 160.)

** The following will show the size and method of working the clays in the sun-pans:—"The *Sun Kiln* is formed usually square, 16 to 20 feet in extent each way, and about 18 inches deep, having at one corner a smaller place, deeper, and lined with slabs or flags. The clay, after being brought out of the mine is spread abroad on the adjoining ground, and frequently turned over by the spade during two or three seasons, that it may be well exposed to the action of the atmosphere, (called *weathering*). Into the smaller vat a quantity of clay is thrown, and by a proper tool *blunged* in the water by agitation, About the year 1743 the Burslem manufacturers finding that those of France used plaster-of-Paris moulds for their ware, adopted the same plan. Mr. Ralph Daniel, of Cobridge, visited a porcelain manufactory in France, probably that of Sèvres, learned how the moulds were made, brought over one, and explained the method of making and using them to the Staffordshire potters.

Although the Staffordshire pottery was by no means so deficient, either in tasteful design or in execution, as has often been supposed, anterior to the productions of Wedgwood, there can yet be little doubt that this justly celebrated potter gave a new impulse to the manufactures produced at the potteries. Josiah Wedgwood, the youngest son of Thomas and Mary Wedgwood, was born at Burslem in July 1730.* It appears that his early education did not extend beyond the ordinary course of reading, writing, and arithmetic, taught at a school at Newcastle-under-Lyne; but he was one of those who continue to educate themselves throughout life, and thus acquire deserved advantages and reputation. Soon after his father's death, in 1739, he was removed from school, and at this early age placed as a "thrower" under his brother Thomas, who had succeeded to the Churchyard Works at Burslem, previously occupied by his father. In 1744 Josiah was apprenticed as a potter to his brother for the term of five years. When freed from this service he entered into a partnership with Mr. Harrison, at the Cliff Bank Pottery, but the connexion was of only short duration, and he soon associated himself with Mr. Whieldon, of Fenton, where he manufactured, among other things, a green ware with a remarkably brilliant glaze. This connexion not suiting Wedgwood's views, he returned to Burslem in 1759, and commenced business for himself in part of the Ivy Works belonging to his cousins, and there manufactured small ornamental articles. After removing to the premises known as the Brick-House Works ("Bell Works") he was fortunate enough to obtain the patronage of Queen Charlotte, who so much admired his "cream-ware"—a material which had received great improvements at the hands of Wedgwood—as to desire that it should be called "Queen's Ware." The foundation of his reputation having been thus laid, orders flowed freely to his manufactory at Burslem. Wedgwood was also fortunate in connecting himself commercially with his friend Mr. Thomas Bentley, a merchant of Liverpool, who became his partner, and managed a warehouse in London for the sale of Wedgwood's ornamental goods. Mr. Bentley's classical acquirements and knowledge of Art were of the greatest service to Wedgwood; and, by procuring the best models, they were enabled to produce those exquisite cameos, medallions, vases, and other ornamental objects for which the firm became so justly celebrated. Of these objects the finest were produced either in the black body, called Egyptian ware or basaltes,

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till all the heavier particles and small stones sink to the bottom; the fluid mass is next poured into a sieve, thro' which it runs into the largest vat, or sun kiln, until the whole surface is covered to the depth of three or four inches, which is left to be evaporated by solar action. When this is partially accomplished, another layer, and a third and fourth are added, until the mass is from 12 to 18 inches deep; and the whole is then cut out and placed in a damp cellar for use." ("Hist. of the Staff. Potteries," p. 98.)

* On Wedgwood's monument in the parish church at Stoke-upon-Trent he is said to have been born in *August* 1730, but the register of St. John's, Burslem, shows that he was baptised in the previous month.

or in the beautiful material known as "jasper ware." The discovery of the jasper was certainly one of Wedgwood's greatest achievements. By the use of either sulphate or carbonate of baryta, or both, he obtained a dense compact paste approaching porcelain in many of its characters, sufficiently hard to receive a good polish, and capable of being delicately and uniformly tinted by the presence of certain metallic oxides. One of Wedgwood's own receipts for the jasper composition, preserved in the Mayer MSS., and published by Miss Meteyard, specifies six parts of cawk (or massive barium sulphate, the mineral known as *heavy spar* or *barytes*), three of potter's clay, one of flint, and one fourth of carbonate of baryta.

Josiah Wedgwood died in January 1795, at Etruria, the classic name which he had given to the locality near Newcastle-under-Lyne, where he had erected his extensive works. To perpetuate his memory the "Wedgwood Memorial Institute" has recently been erected at Burslem, his native place.*

The introduction of the Cornish clay or kaolin and china-stone into the Staffordshire potteries was the means of producing a considerable advance in the manufactures of the district. Mr. Jacob Warburton is said to have been the person to whom the locality is most indebted for the introduction of the porcelain manufacture. Associating himself with other potters, he formed a company, and in 1777 purchased the patent which had been originally granted to William Cookworthy, and afterwards confirmed to Richard Champion, of Bristol.†

Felspar was first employed in the Staffordshire potteries towards the end of the last century by Mr. Josiah Spode, who also has the credit of having introduced the use of bones in the manufacture of porcelain in 1800.

After the introduction of bones into the body, the manufacture of *soft* porcelain became much extended in the potteries, the raw materials being chiefly imported through Liverpool. *Hard* porcelain was not manufactured until 1850, when Mr. Minton produced excellent ware of this kind.

About twenty-five years ago a particular kind of porcelain was invented at the potteries, and termed *Parian* or *statuary biscuit*,‡ of which very beautiful statuettes and other objects are manufactured by Minton, Copeland, Wedgwood, and many other makers.

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* For a full account of Wedgwood and his works the visitor may consult "The Life of Josiah Wedgwood," by Eliza Meteyard; "The Wedgwoods: being a Life of Josiah Wedgwood," by Llewellynn Jewitt, F.S.A.; and "Wedgwood: an Address, by the Right Hon. W. E. Gladstone," delivered on laying the foundation stone of the Wedgwood Memorial Institute, Oct. 26, 1863.

† According to Shaw, Champion at this time sold his patent to a company of Staffordshire potters, consisting of Messrs. S Hollins, of Shelton; Anthony Keeling, of Tunstall; John Turner, of Lane End; Jacob Warburton, of Hot Lane; William Clowes, of Port Hill; and Charles Bagnall, of Shelton. (*See* notice of Bristol porcelain, p. 200.)

‡ Mr. Arnoux points out (Lectures on Ceramic Manufactures, p. 400) that this biscuit differs from porcelain only in the employment of an easily fusible felspar instead of Cornish stone, and that it is fired at a temperature comparatively not high. He also remarks that the fabrication of figures with this biscuit (if such it may be termed) requires great care and skill, the figures being cast in several portions and carefully joined together, while their bulk diminishes by firing to no less than a quarter of the size of the model. The firing itself also requires great care, props being necessary to support the figures, which otherwise would become disturbed. The pleasing tone of the body is said to be due to a small quantity of the silicate of peroxide of iron contained in the felspar or the clays.

Dr. Shaw, writing in 1829, describes the district known as "the Potteries" as being then about 10 miles long, and varying in breadth from three to five miles. He estimated that about 50,000 persons were then employed in the Potteries, in the parishes of Stoke, Burslem, and Wolstanton, including operatives, colliers, and persons engaged on the canal bringing raw materials or carrying away manufactured articles.* Eight years afterwards the same writer estimated that 30,000 persons were employed at Stoke-upon-Trent in connexion with the various earthenware and porcelain works. Mr. Arnoux, in 1852, considered that the number of persons more or less engaged in the 133 factories of the potteries was about 60,000.†

The Staffordshire Potteries still continue to afford the great mass of earthenware manufactured in this country, at the same time contributing a large portion of the porcelain produced. In 1852 Mr. Arnoux estimated the yearly value of English pottery manufactured at 2,000,000*l.*; and at that time 84,000,000 pieces, of the value of 1,220,000*l.*, were exported.

The chief mineral substances employed in the Staffordshire Potteries are kaolin or china-clay, from Cornwall and Devon; porcelain-granite or china-stone from the same counties; natural clay from Dorset (Poole clay); flints from the chalk districts; and felspar from Norway and other places.

In 1816 the Staffordshire manufacturers assembled to celebrate the fiftieth anniversary of the opening of the canal between the Trent and the Mersey, a work of the greatest importance to them. A museum was then inaugurated, illustrative of the progress of Staffordshire pottery, and some well-known old works which had been closed for many years were searched for specimens. A selection of these examples, illustrative of the history of pottery manufactured in Staffordshire up to the end of the last century, obtained from the late Mr. Enoch Wood, to whom the collection belonged, forms the base of the Staffordshire series exhibited in this museum.

Early Staffordshire Pottery.

[Wall Cases I. to V.; upper shelves.]

G. 1. BUTTER-POT, of cylindrical form (fig. 94). Height, 14½ inches; diameter, 6½ inches. Body coarse, brown, hard, unglazed; upper part broken.

Coll. Enoch Wood.

Dr. Plot, in his *Natural History of Staffordshire*, published in 1686, says (p. 108), "The butter they buy by the *pot*, "of a long cylindrical form, made at *Burslem* in this *county* of a certain *size*, so as "not to weigh above *six* pounds at most, "and yet to contain at least 14 pounds of "*butter*, according to an *Act* of *Parliament* "made about 14 or 16 years agoe,‡ for "regulating the abuses of this *trade*, in "the make of the *pots*, and false packing "of the *butter*." He also mentions that the cheesemongers of London had established a factory at Uttoxeter, and that the parties laid out in the season not less than 800*l.* on market days for butter and cheese. The factors kept a surveyor during the summer, who probed the pots with an instrument called a *butterboare*. It was an object that the pots should be hard, and not so porous as to imbibe much water, which might be counted in the weight for butter.

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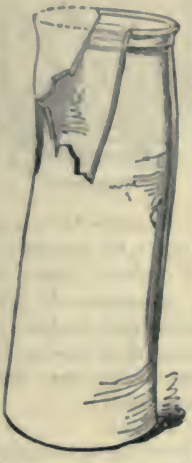
* "History of the Staffordshire Potteries." Judging from the number now employed, and the extension of the potteries since that time, 50,000 persons would appear to have been an over-estimate.

† "Lectures on Ceramic Manufactures; Lectures on the Results of the Great Exhibition of 1851," vol. ii. p. 380.

‡ 13 & 14 Charles II. cap. 26., 1661. Although not published until 1686, Plot's work must have been written several years prior to that date.

Dr. Shaw, writing in 1829, remarks that "the common people of the district, "at the present day, call Irish tub-butter "*pot-butter*," and the same use of the term is still retained.

Fig. 94.



G. 2. Butter-pot. Height, 7½ inches; diameter uncertain, from warping. Body coarse, reddish-brown, with long streak of dark brown glaze of silicate of oxide of lead.

Coll. Enoch Wood.

This piece has apparently been a castaway from some of the works of the time.

G. 3. Butter-pot, with brown glaze. Broken; apparently a castaway.

Coll. Enoch Wood.

G. 4. Drinking Vessel in form of a Bear clasping its cub. Coarse brown glazed body, roughened with fragments of potsherd sprinkled on the surface.

Coll. Enoch Wood.

This vessel has its mouth situated at the base, so that when inverted and filled with liquid it cannot be set down until it is emptied; hence the adage "'ware the bear." Probably the form was imitated from that of similar vessels manufactured in Germany. Compare the bear in Nottingham ware, U. 5, p. 254.

G. 5. Bell in coarse red ware, coated with dark brown glaze.

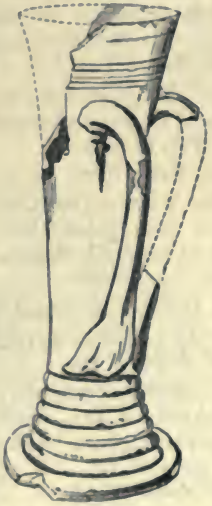
G. 6. Single-handled Cup and Cover. Height, 5½ inches; diameter of rim, 3 inches. Body reddish brown, coated with brilliant chocolate-coloured glaze; handle broken.

Coll. Enoch Wood.

G. 7. Two-handled Tyg (fig. 95). Height, 11½ inches. Body light reddish-brown, covered with dark brown lead glaze; broken. Found in George Yard, Lombard Street, 1844.

Coll. Chaffers.

Fig. 95.



The *tyg* was a drinking cup having more than a single handle, so that several persons drinking from the vessel, and each using a separate handle, would bring their lips to different parts of the rim. They were largely used in the sixteenth and seventeenth centuries. The double-handled tygs are generally called "parting cups," while those with more than two handles pass under the name of "loving cups." The word *tyg* is derived from the Anglo-Saxon *tygel* or *tigel*,* signifying a tile, or anything made of clay; whence *tygel-wyrhta* denoted a tile-worker or potter, a word that survives in the surname *Tilewright* and its corruptions, still common in Staffordshire.

G. 8. TWO-HANDLED TYG. Reddish brown paste, with brilliant chocolate-coloured glaze; broken.

Coll. Enoch Wood.

G. 9. TWO-HANDLED TYG, or broad shallow cup. Height, 3 ins.; diameter of rim, 4 inches.

Coll. Enoch Wood.

It may be noted that in Nos. G. 7 and G. 8 the two handles are placed close together, while in No. G. 9 they are situated on opposite sides of the vessel.

G. 10. THREE-HANDLED TYG. Reddish-brown paste, coated with brilliant dark brown lead glaze. Rim slightly chipped.

Coll. Enoch Wood.

G. 11. COVER OF A TYG, of circular form, 3 inches in diameter. Red body, with dark brown glaze.

Coll. Enoch Wood.

G. 12. THREE-HANDLED TYG, with twisted ornament between each handle. Top broken.

Coll. Enoch Wood.

G. 13. THREE-HANDLED TYG, similar to last piece, but wider. Diameter of base, 3½ inches.

Coll. Enoch Wood.

G. 14. Base of a broad THREE-HANDLED TYG. Diameter, 3¾ inches.

Coll. Enoch Wood.

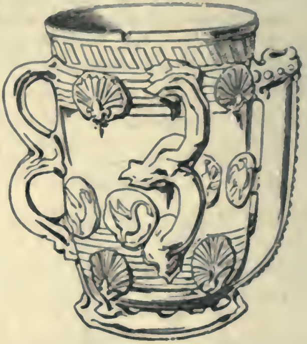
G. 15. Lower part of a large THREE-HANDLED TYG, with a pale brown speckled glaze. Diameter of base, 4¾ inches.

Coll. Enoch Wood.

G. 16. LARGE TYG, with three handles and spout, ornamented before glazing with bosses stamped with a flower, a spread-eagle, and a swan (fig. 96). Height, 7 inches; diameter of rim, 4¾ inches. Paste light red, with amber-coloured glaze; ornaments and handles chocolate-coloured.

Coll. Bandinel.—Presented by Dr. Page.

Fig. 96.



G. 17. LARGE FOUR-HANDLED TYG. Height, 6½ inches; diameter of rim, 4 inches. Body chocolate coloured, ornamented with rude medallions in pale yellow, embossed with a rose, fleur-de-lis, lion rampant, quatrefoils, the initials IL, and the date 1621.

Coll. Bernal.

G. 18. DOUBLE-HANDLED POSSET-POT. Body dark brown, ornamented in yellow slip with fleur-de-lis, the initials IE and EC, and date 1681. Two heraldic devices have been laid on in clay, but are for the most part chipped off, a crown and unicorn alone remaining.

G. 19. LARGE DRINKING MUG, with two knobs serving as handles. Height, 7 inches; diameter, 5½ inches. Body dark brown, ornamented in yellow slip with fleur-de-lis, the initials IE, and date 1710.

Coll. Burns.

G. 20. JUG, of coarse brown paste imperfectly coated with dark glaze. Height, 8 inches. Handle broken. Apparently a castaway.

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* Bosworth's Anglo-Saxon Dictionary, *sub voce.*

Coll. Enoch Wood.

G. 21. Portion of a Pipe or Vessel, of same ware and style of glazing as the tygs. Use uncertain. Fractured prior to glazing.

Coll. Enoch Wood.

G. 22. Large Jug. Height, 13¼ inches; diameter of mouth, 3½ inches. Body coarse reddish brown, glazed black, ornamented with rude mask and with serrated bands, circles, and crosses; stamped with initials IB.

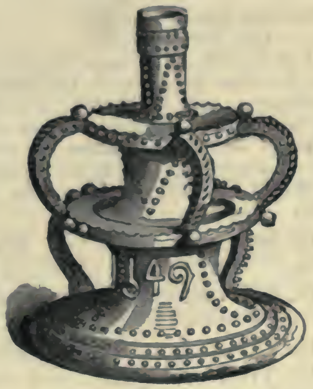
G. 23. Candlestick (fig. 97), in much the same kind of ware as the tygs. Height, 7 inches; diameter of base, 5¼ inches. Ornamented with pattern of dots laid on in white clay dip, or barbotine, on a deep chocolate-coloured ground, and bearing the initials EM and the date of 1649.

Coll. Bandinel.—Presented by Dr. Page.

From a partial removal of the white dip prior to glazing, the 6 in this date has been taken for a 5, and consequently the date supposed to be 1549. A close examination shows the 6. This candlestick is figured in Marryat's "History of Pottery and Porcelain," 3rd edition, p. 186, fig. 112.

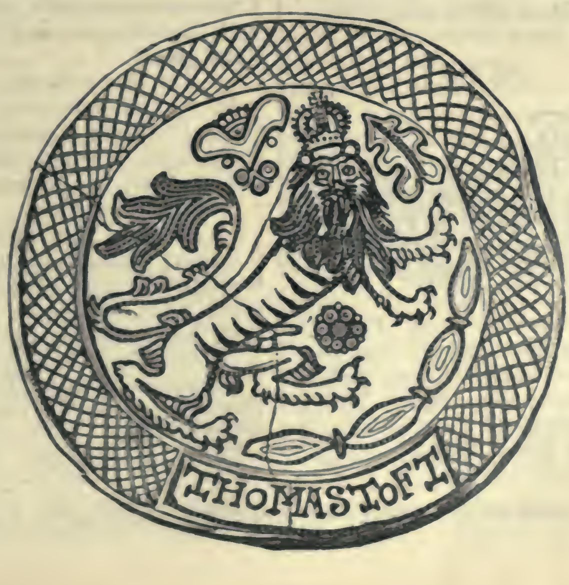
A candlestick in similar ware, with nozzles for holding nine candles, in the collection of Mr. H. Willett, bears the date 1656.

Fig. 97.



G. 24. Coarse Dish, 14 inches in diameter. Buff-coloured ground, ornamented with rude form of royal arms in orange and brown slip, laid on in relief. Rim indented.

Fig. 98.



G. 25. Large Dish, 17½ inches in diameter. Body buff coloured, with ornaments laid on in relief in dark and light brown. In the centre a crowned lion rampant, surrounded by trellised border inscribed with name of maker, Thomas Toft, as shown in the preceding figure (fig. 98).
Coll. Enoch Wood.

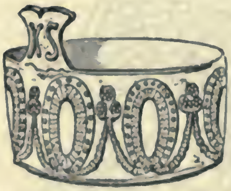
A large dish by the same maker is in the Bateman Museum, at Youlgrave, in Derbyshire, and is figured in Jewitt's "Life of Josiah Wedgwood," p. 24. The name of *Ralph Toft* occurs on similar dishes, one of which is in the possession of Mr. H. Willett, and bears the date 1677.

G. 26. to G. 30. Fragments of similar ware, some of which are impressed and embossed.
Coll. Enoch Wood.

G. 31. Fragment of quadrangular Tile. Body red, with ornaments in pipe clay, glazed.
Coll. Enoch Wood.

G. 32. Piggin (fig. 99). Height 3½ inches; diameter, 4¾ inches. Body fawn coloured, painted dark brown, and ornamented with indented pattern. Upright handle, bearing initials KS in brown slip.
Coll. Enoch Wood.

Fig. 99.



G. 33. Two-handled Posset-pot. Height, 5 inches; diameter of mouth. 6½ inches. Body yellow glazed, ornamented with brown marbled bands, and inscribed around the rim in brown slip, ornamented with yellow dots, IOSHVA HEATH.
Coll. Bernal.

It has been suggested that this is a piece of early Derby pottery from the old Cockpit Hills works, which were conducted by Messrs. J. and C. Heath.* The inscription is followed by marks which are doubtfully construed as the figures 177.

It appears probable that the names frequently found on these pieces of old English pottery were not those of the actual makers, but simply the names of the persons for whom the vessels were made. Thus Mr. Willett possesses a posset-pot, formerly in Mr. Hawkins' collection, which is inscribed "Ann Draper, this cup I made for you, "and so no more. J. W. 1707."

G. 34. Two-handled Posset-pot. Height, 5½ inches, diameter of mouth, 5 inches. Body pale yellow, marbled brown, with stamped ornaments inscribed in compartments around the neck with the initials RF, IG, MC, RD, and date 1682.

G. 35. Two-handled Posset pot, much broken. Body nearly black, with pipeclay ornaments.
Coll. Enoch Wood.

G. 36. Posset-pot. Height, 3 inches; diameter of mouth, 4½ inches. Cream-coloured ware, painted with dark brown spots and bands, partially glazed.
Coll. Enoch Wood.

G. 37. Posset-pot. Height, 5 inches; diameter of mouth, 6½ inches. Body light coloured, with mottled brown glaze; handle wanting.
Coll. Enoch Wood.

G. 38. Mug (fig. 100). Height, 6 inches; diameter, 4½ inches. Yellow ground, ornamented with rude scroll work in brown and white slip; bottom and handle wanting.
Coll. Enoch Wood.

The following pieces, G. 39 to G. 49, are placed on a glass shelf above the other specimens.

G. 39. Pint Mug. Height, 4

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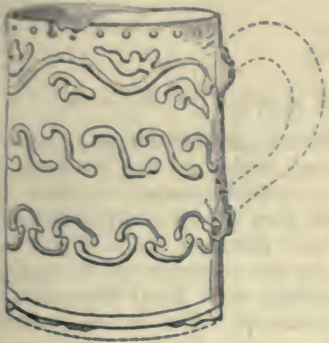
* "The Pottery and Porcelain of Derbyshire," by A. Wallis and W. Bembrose, jun. 1870.

inches; diameter of mouth, 3¼ inches. Brown body washed inside with white pipeclay, and ornamented outside with same substance in marbled bands.

Coll. Enoch Wood.

Mr. A. W. Franks mentions (MS.) that a similar mug, belonging to the Rev. T. Stamforth, of Storrs, Windermere, bears the date of 1694.

Fig. 100.



G. 40. Mug. Height, 3 inches; diameter of mouth, 2¾ inches. Body fawn colour, painted with dark brown, forming a pattern.

Coll. Enoch Wood.

G. 41. Mug, of same size as last. Body fawn colour, painted dark brown so as to leave the body exposed in circular spots.

Coll. Enoch Wood.

G. 42. Fragment of a Mug. Body fawn colour, with vertical bands of marble pattern in dark brown.

Coll. Enoch Wood.

G. 43. Mug, of cylindrical form. Height, 3¾ inches; diameter, 2¾ inches. Ornamented with double set of turned bands, and coated with brown wavy glaze.

Coll. Enoch Wood.

G. 44. Fragment of a Mug, similar to last, but smaller.

Coll. Enoch Wood.

G. 45. Mug, with rounded base. Height, 2½ inches; diameter of mouth, 2⅛ inches. Body light coloured, mottled with brown glaze, and ornamented with three ribs round the body; handle wanting.

Coll. Enoch Wood.

G. 46. Mug, similar to last. Height, 2¾ inches; diameter of mouth, 2½ inches. Glaze speckled.

Coll. Enoch Wood.

G. 47. Mug, similar to last. Height, 2⅛ inches; diameter of mouth, 2½ inches. Body stoneware, with lower part gray and upper part a full brown; rim chipped.

Coll. Enoch Wood.

G. 48. Cup, without handle, pressed in a mould. Light red compact body, unglazed, ornamented with relief scroll-work and fluting, the rim and much of the ornament being decorated with white Devon Clay.

Coll. Enoch Wood.

G. 49. Cup and Saucer, similar to last, but glazed, the body thus becoming chocolate coloured, and the clay ornaments fawn coloured.

Coll. Enoch Wood.

The following pieces, G. 50 to G. 55, are on the shelf below the glass support on which the preceding pieces stand.

G. 50. Quart Mug. Height, 5¼ inches; diameter of mouth, 4½ inches. Paste red, ornamented in relief in Devon clay, with the Royal Arms, a stag, lion, &c. Glazed, the body becoming chocolate coloured, and the clay ornaments fawn coloured. Handle wanting.

Coll. Enoch Wood.

G. 51. Coffee-pot. Height, 5½ inches; diameter of mouth, 2¼ inches, and of base, 4¼ inches. Red body glazed with yellow clay ornaments in relief, including a lion rampant, crown, flowers, birds, &c. Cover wanting.

The character of the ornamentation on this piece, and on the preceding, may be compared with that on some of Elers' ware.

G. 52. Small Tea-pot, pressed in a mould. Height, 4½ inches.

Red body, glazed, embossed with figures of four birds in as many compartments. Cover wanting.

Coll. Enoch Wood.

G. 53. Drinking Cup. Height, 5½ inches; diameter of mouth, 3¾ inches, and of base, 2½ inches. Ground, chocolate coloured, sprinkled with fragments of yellow clay, and glazed. Broken in two pieces, and rivetted.

G. 54. Flat Flask, with two ears pierced for passage of a suspending string. Diameter of body, 5½ inches. Ornamented with brown and yellow marbling.

Coll. Bandinel.—Presented by Dr. Page.

G. 55. Basin. Height, 3½ inches; diameter of mouth, 8¼ inches. Body yellow, marbled red and brown.

Elers' Ware.

[Wall Cases IV. and V.; glass shelf in upper part of Cases.]

A reference to the Brothers Elers, the Dutch potters who manufactured this ware, will be found in the historical notice of the Staffordshire potteries (p. 102). The specimens here exhibited serve to show the character of the celebrated red ware which they produced in imitation of Japanese porcelain. The paste is hard and possesses a fine colour and close texture, while the manufactured articles are characterized by elegance of outline and design, and are often decorated with floral ornaments in sharp relief, produced by pressing in copper moulds.. The period of manufacture extended from 1688 to 1710.

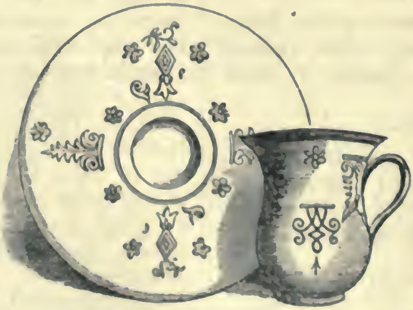
G. 56. Drinking Cup, in plain red ware. Height, 3¼ inches; diameter of mouth, 3 inches. Conical form; no handle.

G. 57. Tea-cup. Height, 2½ inches; diameter of rim, 2¾ inches. Surface plain.

G. 58. Coffee-cup, (fig. 101). Height, 2½ inches; diameter of rim, 2½ inches. Surface ornamented with pressed pattern in sharp relief.

G. 59. Saucer, in similar ware (fig. 102). Diameter, 4½ inches.

Figs. 101 and 102.



G. 60. Mug. Height, 2¾ inches; diameter 2¼ inches; cylindrical form, with handle, and ornamented in relief.

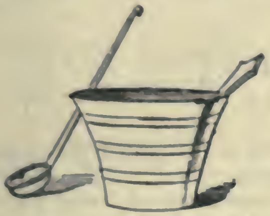
G. 61. Mug, similar to last. Height, 2½ inches; diameter, 2 inches.

G. 62. **Piggin**, or small cup with rising handle, (fig. 103). Height, 2 inches; diameter of rim, 2½ inches. Surface ornamented with horizontal bands turned on a lathe.

G. 63. **Piggin**, similar to last, but handle broken off.

G. 64. **Small Ladle**, very neatly formed (fig. 104). Diameter of bowl, 1¼ inch; length of handle, 3½ inches.

Figs. 103 and 104.



G. 65. **Tea-pot and Cover.** Height, 4¼ inches; diameter of body, 3¾ inches. Ornamented with Chinese floral pattern in relief, and stamped on the bottom with circular mark surrounding figure of a stag.

This piece, which is of a lighter colour than most of the other specimens, is figured in Miss Meteyard's *Life of Josiah Wedgwood*, vol. i. p. 139.

G. 66. **Small Tea-pot and Cover.** Height, 3 inches; diameter of body, 3 inches. Ornamented in relief, and stamped on the bottom with a square mark in imitation of that of Chinese or Japanese ware.

G. 66*a*. **Small Tea-pot**, similar to last, with same mark; cover wanting.

G. 67. **Small Tea-pot**, similar to last, but without mark; the paste is of a lighter red colour and its surface less lustrous than that of the preceding pieces.

All the foregoing specimens of Elers' ware from Coll. Enoch Wood.

G. 68. **Large Tea-pot and Cover.** Height, 7 inches; greatest diameter, 7 inches. Paste red, unglazed; ornamented in relief with rosettes, scrolls, foliage and birds. Stamped on base with round Japanese mark.

Coll. Church.

This large piece stands on a shelf above the other specimens of Eler's ware.

Agate-Ware, &c.

[Wall Case IV.]

The paste of this ware was produced by mixing together clays of various colours, so as to form an irregularly variegated body in imitation of agate or of marble. Some of Josiah Wedgwood's early efforts were directed to the manufacture of knife handles in agate-ware.

G. 69. **Four Knife Hafts** of agate-ware. One of them is broken across to show the character of the variegated paste, from which it is seen that the pattern is not merely superficial, but passes completely through the paste.

G. 70. **Butter Boat**, mounted on three claws, in similar ware.

G. 71. **Tea-pot and Cover**, in similar ware. Height, 3 inches; diameter of body, 4 inches.

G. 72. **Teapot and Cover**, similar to last; rim chipped.

G. 73. **Coffee-pot**, similar ware. Height, 5½ inches; diameter of mouth, 2½ inches; of base, 4 inches. Octagonal form; cover wanting.

G. 74. **Saucer.** Diameter, 7 inches.

Nos. G. 69 to 74 from Coll. Enoch Wood.

G. 75. **Plate.** Diameter, 8½ inches. Coarse brown ware, coated with thick marbled glaze.

This piece is much coarser, and probably much older, than the other specimens.

G. 76. **Plate.** Diameter, 8¾ inches. Marbled in diamond pattern; shaped edge.

G. 77. **Plate.** Diameter, 7 inches. White earthenware body, marbled on surface in blue, reddish brown, and a dark brown; shaped edge, touched with green.

G. 78. **Coffee-cup**, marbled in chocolate and blue.

Coll. Bandinel.

A ware closely resembling some of the Staffordshire agate-ware, was certainly made at Leeds. A specimen in the collection (R. 42), is stamped "Leeds Pottery," and this piece has led to the identification of other specimens of agate ware which would otherwise have been attributed to the Staffordshire potteries. Some of the specimens formerly in the Staffordshire series have consequently been removed to the collection of Leeds ware (*see* pp. 240, 241).

Tortoise-shell Ware.

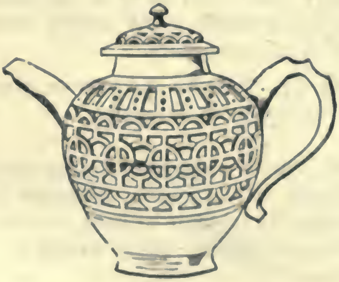
[Wall Case V.]

The surface of this ware is covered with a variegated glaze, either of a rich brown or of a mottled purple and green colour. Thomas Wheildon was famous for the production of such "tortoise-shell ware," and it was also manufactured by Josiah Wedgwood during his partnership with Harrison and with Wheildon. Many of these pieces may be referred to about the year 1750.

G. 79. **Coffee-pot and Cover**, in tortoise-shell ware. Height, 7½ inches; diameter of mouth, 2¾ inches, of base, 4 inches. Surface decorated with floral ornaments in low relief.

The mottled purple and green glaze on this ware is obtained by the use of manganese ore and galena.

Fig. 105.



G. 80. **Tea-pot and Cover**, in similar ware (fig. 105). Height, 6 inches; diameter of body, 5 inches. Open ornamental work outside.

G. 81. **Octagonal Plate.** Diameter, 8¾ inches. Circular centre, and ribbed edge.

A similar plate in tortoise-shell ware is figured in Jewitt's *Life of Josiah Wedgwood*, p. 118.

G. 82. **Half of an Octagonal Dish**, similar to last. Diameter, 11¾ inches.

G. 83. **Circular Dish**, in brown tortoise-shell ware. Diameter, 9 inches.

According to Enoch Wood's catalogue, this piece is said to have been manufactured by Wedgwood.

G. 84. **Butter Boat**, in similar brown ware (fig. 106).

G. 85. **Bowl.** Height, 3 inches; diameter of rim, 5¾ inches. Brown tortoise-shell ware ornamented with flowers in relief and gilt (fig. 107).

G. 86. **Plate.** Diameter, 9¼ inches. Mottled pattern divided into segments by brown bands radiating from centre; border ornamented in relief, and edge shaped.

G. 79 to 86 from Coll. Enoch Wood.

Fig. 106.

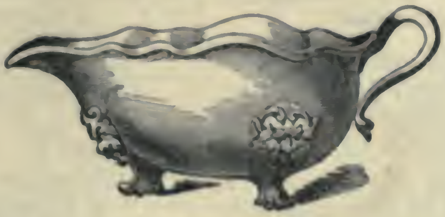
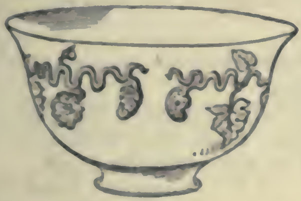


Fig. 107.



G. 86*a*. **Plate.** Diameter, 9¼ inches. Cream-coloured ware, mottled brown and green; shaped edge, and pressed border.

G. 86*b*. **Plate.** Diameter, 9 inches. Cream-coloured ware, mottled purplish-brown and yellow; shaped edge, and pressed border; marked with a small incised square.

According to Mr. Joseph Mayer ("History of the Art of Pottery in Liverpool," p. 25), tortoise-shell ware extremely similar in character to some of these Staffordshire specimens was manufactured at Liverpool about the year 1760 by Mr. Philip Christian.

Drab-coloured Salt-glazed Ware.

[Wall Cases, I., II., III.; upper shelf of lower compartment.]

This ware was manufactured, in the early part of the eighteenth century, from a mixture of Devon clay and Mole Cop sand. The drab-coloured surface is decorated in relief with white ornaments in Devon clay, and it will be noticed that these ornaments often bear a striking resemblance to the pressed decoration on Elers' ware; the resemblance is indeed so close that many authorities have been led to believe that this rare ware may safely be attributed to the Elers' factory. Many of the pieces exhibit marks of having been turned on the lathe before being ornamented. The surface is salt-glazed, and some of the pieces are decorated with gilding over the glaze.

G. 87. **Large Tea-pot and Cover.** Height, 7 inches; greatest diameter of body, 7 inches. Drab-coloured ware, white inside, with white crab-stock handle and spout; outside decorated in relief with conventional floral ornaments in white.

G. 88. **Smaller Tea-pot**, similar to last. Height, 4½ inches; diameter of body, 6 inches. Relief ornaments in diamond-shaped compartments; handle wanting.

G. 89. and G. 90. } **Pair of Flower Pots and Stands.** Height, 4½ inches; diameter of rim of pot, 5¾ inches. Drab coloured both inside and outside, with applied white ornament.

G. 91. **Quart Jug.** Height, 7 inches. Drab ware with inside white, and relief ornaments in white.

G. 92. **Smaller Jug**, similar to last. Height, 5½ inches. Crab-stock handle.

G. 93. **Cream Jug.** Height, 3½ inches. Drab body, ornamented with vine in white relief.

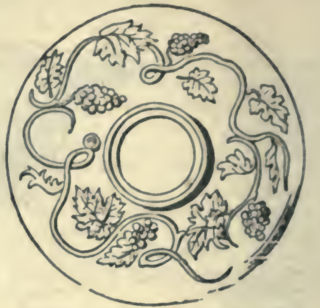
G. 94. **Basin.** Height, 3 inches; diameter of mouth, 5¼ inches. Inside white; outside drab with white vine pattern.

G. 95. **Small Basin,** similar to last. Height, 2¼ inches; diameter of mouth, 4 inches.

G. 96. **Coffee-cup.** Height, 2½ inches. Drab body, with white scroll ornament, stars, &c.

G. 97. **Saucer** (fig. 108). Diameter, 4 inches. Inside white, outside drab with vine pattern in white relief.

Fig. 108



G. 98. **Saucer,** similar to last. Broken.

G. 99. **Saucer.** Diameter, 4¾ inches. Drab body with vine pattern in white relief on inside.

G. 87 to 99 from Coll. Enoch Wood.

White and Cream-coloured Salt-glazed Ware.

[Wall Cases I. to V.; lower shelves.]

Some of this ware was shaped by pressing the moist paste in metal moulds, the ornament thus possessing very sharp relief, whilst other pieces were "cast" in moulds of plaster-of-Paris, the slip being introduced so as to form at first a thin layer, lining the mould, and this operation being repeated until a sufficiently thick body was obtained. Many of the stoneware models from which the plaster moulds were taken are here exhibited, together with one of the metal moulds, now become extremely rare.

The paste of some of this ware is so fine as almost to resemble a porcelain. Indeed, Professor Church observes that, had a little more alkali entered into the composition of the better and whiter specimens, it would have been in reality a kind of hard porcelain.* The surface is coated by a glaze formed upon the ware by the action of the vapour of common salt in the manner previously described (p. 53). One of the saggers in which this salt-glazed ware was fired is exhibited in the collection.

It is believed that the period of manufacture of this ware extended from 1690 to 1780; one specimen in the collection (G. 111.), bears the date 1763. This ware is frequently referred to by the inappropriate name of *Elizabethan ware,* while the earlier specimens have passed under the designation of *Crouch ware.*

G. 100. **Old Sagger,** employed in firing the early Staffordshire salt-glazed ware. Diameter, 15 inches; height, 8 inches. Found built into an old wall in the neighbourhood of Hanley, Staffordshire.

The sides of this sagger exhibit four perforations through which the vapour of common salt gained access to the enclosed pieces of ware, and formed a vitreous silicate of soda by attacking the silica of the paste. The sagger has itself become irregularly coated with a similar glaze. On account of its size this specimen is placed on the bottom shelf at the right-hand corner of Case V.

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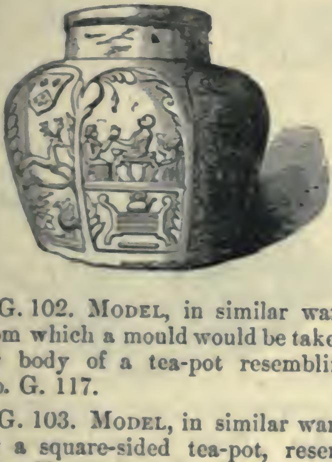
* "Catalogue of the Specimens of Old English and other Pottery in the Collection of Arthur Herbert Church." Cirencester, 1870, p. 8.

G. 101. Model, in thick stoneware, from which a plaster-of-Paris mould would be taken for the body of an eight-sided tea-pot (fig. 109).

The eight compartments are ornamented with bas-reliefs, apparently from a German pattern. The designs include a tea party, hunting scene heraldic devices, double-headed eagle, Cupid on a lion, &c. This and most of the following pieces are from the collection of the late Mr. Enoch Wood.

Fig. 109.



G. 102. Model, in similar ware, from which a mould would be taken, for body of a tea-pot resembling No. G. 117.

G. 103. Model, in similar ware, for a square-sided tea-pot, resembling No. G. 121.

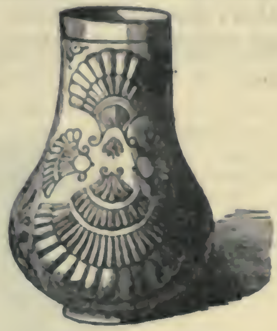
G. 104. Model, in similar ware, for body of a jug (fig. 110), resembling No. G. 115.

G. 105. Model, in similar ware, for large soup tureen, ornamented in relief with basket-work and scroll and diaper patterns.

G. 106. } Models of covers to
G. 106*a*. } similar tureens.

G. 107. } Models of a butter-
G. 107*a*. } boat resembling No.
G. 141, with scroll pattern in relief.

Fig. 110.



G. 108. Model of a sauce-boat with fret pattern in relief.

G. 109. Model of cover for tea-pot, in unglazed ware; circular shape, divided into eight segments containing subjects resembling those on No. G. 101.

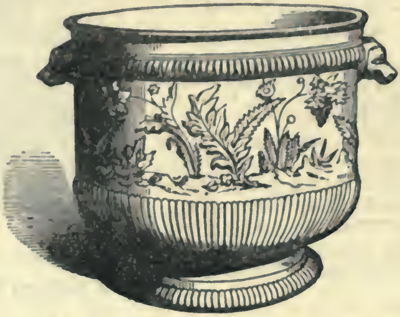
G. 110. Mould, in unglazed ware, of a heart-shaped cover for tea-pot, ornamented with incised scroll pattern.

G. 111. Large oval Soup-tureen, cover, and Stand. Height, 10 inches; greatest diameter, 14½ inches. Body decorated with pressed ornaments, including scroll-work and diaper and basket-pattern, the tureen mounted on three lion's claws with masks. On the inside of the cover the initials *"J. B."* have been rudely scratched in cursive letters while the paste was soft, and the letters subsequently covered with the glaze; on the bottom of the tureen are similarly scratched under the glaze, the initials and date *"J. B., 1763."*

G. 112. Large Oval Soup-tureen. Height, 5¼ inches; greatest diameter, 9 inches. Body impressed with simple pattern; foot chipped.

G. 113. Seau, in salt-glazed cream-coloured ware (fig. 111). Height, 8 inches; diameter, 7 inches. Body ribbed vertically, and ornamented in low-relief with flowers and fern-fronds; two side-handles in form of animal heads; rim chipped.

Fig. 111.



G. 114. Sucrier, in similar ware. Height, 3 inches; diameter, 4 inches. Surface moulded with simple scroll pattern.

G. 115. Cream Jug, in similar ware. Height, 4¾ inches; diameter of rim, 2¼ inches. Surface ornamented in relief with pecten pattern. Compare No. G. 104, fig. 110.

G. 116. Tea-pot and Cover, with rustic handle and spout. Height, 5 inches; diameter of body, 4½ inches. Surface ornamented in relief with vine.

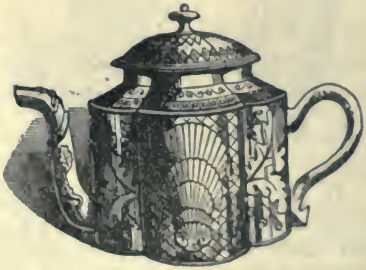
G. 117. Tea-pot and Cover. Height 6½ inches. Body ornamented with shell pattern. Compare No. G. 102.

G. 118. Tea-pot and Cover (fig. 112). Height, 5 inches. Body four-lobed, with shell pattern and oak leaves in relief.

G. 119. } Two Tea-pots and
G. 120. } Covers. Height, 5½ inches. Body heart-shaped in transverse section, with vine pattern in relief.

G. 120*a*. Tea-pot, hexagonal, with ogee-curved sides; surface covered with pressed pattern of large leaves; rustic handle, and leafy spout.

Fig. 112.

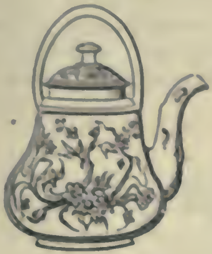


G. 121. Tea-pot. Height, 4½ inches. Body diamond-shaped in section, each of the square sides, containing a shell in centre, surrounded by a fret border enriched with blue; spout in form of an animal's neck and head; handle with ornament; cover wanting.

G. 122. } Two Small Tea-pots
G. 123. } and Covers (fig. 113). Height, 4 inches; greatest diameter of body, 3 inches. Body impressed with floral ornament.

G. 124. Tea-pot and Cover. Height, 5 inches. Body square, in form of a three-storied building, with royal arms over gate; handle in form of an animal's head.

Fig. 113.



G. 125. TEA-POT and COVER. Height, 5 inches; diameter of body, 4½ inches. Body spheroidal, embossed with floral and shell pattern.

G. 126. TEA-POT and COVER. Height, 4½ inches; diameter of body 5 inches. Body globular, embossed with vine pattern, gilt.

G. 127. SMALL TEA-POT. Height, 3½ inches; diameter of body, 3 inches. Lower half of body fluted, upper half plain; cover wanting.

G. 128. TEA-POT. Height, 4 inches; diameter of body, 4½ inches. Ornamented with simple scroll pattern in relief.

G. 129. TEA-CANISTER. Double body, for black and green tea, united by handle; surface ornamented in relief by division into squares, each square occupied by five dots or by a star.

G. 130. BOWL. Ornamented in relief with flowers and bird holding sprig in its mouth.

This bird has been regarded as the liver, and the plant as the liver-wort; hence the specimen has been referred to the Liverpool Potteries. It is believed, however, that there is no evidence showing that salt-glazed ware has been made at Liverpool. The bird may be compared with that on the Elers' tea-pot, G. 68, p. 113.

G. 131. BASIN. Height, 3¼ inches; diameter of rim, 5¾ inches. Body fluted in same style as No. G. 128.

G. 132. }
G. 133. } TWO BASINS. Height, 3 inches; diameter of rim, 5½ inches. Embossed with shell pattern.

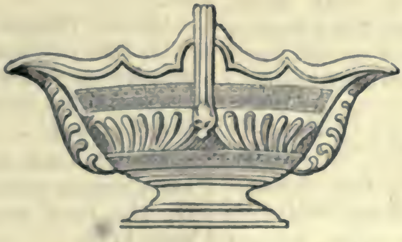
G. 134. BOTTLE-SHAPED VASE, in salt-glazed ware. Height, 8 inches. Body plain.

Presented by Leo Martin, Esq.

G. 135. CORNUCOPIA, in similar ware. Body spirally twisted, with border of vine round the mouth.

G. 136. DOUBLE-HANDLED BUTTER-BOAT (fig. 114). Shaped edge: body ornamented with fluting and fret pattern.

Fig. 114.



G. 137. }
G. 138. } TWO SAUCE-BOATS, ornamented with embossed floral pattern.

G. 139. Smaller SAUCE-BOAT, similar to last.

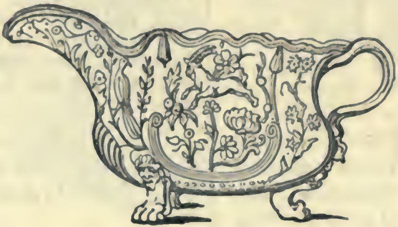
G. 140. Sauce-boat, with simple embossed pattern on body, and scroll work under spout.

G. 141. Sauce-boat, with embossed scroll-work and diaper pattern. Compare model No. G. 107.

G. 142. Sauce-boat, with embossed scroll-work and diaper and basket pattern. Compare model No. G. 109.

G. 143. Sauce-boat (fig. 115). Form apparently taken from silver plate. Surface embossed with figures of a goat, bird, flowers, &c.

Fig. 115.



G. 144. G. 145. Two Small Sugar Basins. Height, 3 inches; diameter, 4 inches. Surface divided into eight compartments ornamented in relief with subjects similar to those on No. G. 101.

G. 146 to G. 149. Four Coffee-cups, embossed in similar style to last piece.

G. 150. Coffee-cup. Lower part fluted, the upper part with simple scroll pattern.

G. 151. Coffee-cup, embossed with pattern similar to that on No. G. 121.

G. 152. Coffee-cup, with fluted body.

G. 153. Tea-cup, with fluted body. This cup, like the following pieces, has the form of a small bowl, and is not furnished with a handle.

G. 154. Tea-cup, large size, with body strongly fluted.

G. 155. Tea-cup, with pressed pattern similar to that on No. G. 101.

G. 156. Tea-cup, with pressed pattern resembling that on No. G. 121; a scroll border runs round the rim.

G. 157. Small Tea-cup, similar in style to last, with incised zig-zag border enriched with blue colour.

G. 158. Small Tea-cup, similar in style to last, with incised scroll border coloured blue.

G. 159. to G. 161. Three Blancmange Moulds, in salt-glazed ware. Small star-shaped cups.

G. 162. Blancmange Mould, in similar ware. Oval shape, fluted.

G. 163. Blancmange Mould, similar to last, but larger.

G. 164. Pickle Tray. A small shallow oval tray with shaped edge, plain inside.

G. 165. G. 166. Pickle Trays, of similar shape to last; the inside ornamented with scroll pattern in sharp relief, produced by pressing in metal moulds.

G. 167. Iron Mould and Copper Core, in which Nos. G. 165 and G. 166 have been "cast." Date *circa* 1745.

167*a*. Lead Mould for dessert spoon, in two parts; on base of iron.

167*b*. Brass Mould for a small tea spoon, in two parts.

G. 168. Pickle Dish, in form of a shallow four-sided dish, ornamented with scroll pattern impressed in sharp relief.

G. 169. Knife-haft, with embossed ornament.

Presented by Prof. A. H. Church, M.A.

G. 170. Vase, 6¾ inches high; hexagonal body, ornamented with embossed diaper pattern and scroll-work, bearing traces of oil-gilding.

G. 171.
G. 171*a*. } Two Plates, octagonal. Diameter, 8¾ inches. Circular centre plain; border pressed.

G. 172. Plate, circular. Diameter, 9 inches. Shaped edge; border pressed in similar style to last.

G. 173. Plate, circular. Diameter, 9 inches. Body coarse; pressed border with compartments, containing in relief a military trophy, the Prussian eagle, portrait of Frederick the Great, and inscription, "Success to the King of Prussia and his Forces."

Coll. Bandinel.

This allusion to the victories of Frederick the Great gives an approximate date to the specimen. Mr. H. Willett has a similar plate, with the same inscription, in tortoise-shell ware; thus showing that the two kinds of ware were manufactured at the same period, and perhaps in the same factory.

G. 174. Dish, Circular. Diameter, 9 inches. Body plain, divided into six compartments; edge ribbed.

G. 174*a*. Dish, circular. Diameter, 11½ inches. Centre plain; border pressed with basket and diaper pattern; edge shaped.

G. 175. Dish, oval. Longer diameter, 11½ inches; shorter diameter, 9¾ inches. Body covered with embossed scroll-work and diaper and basket pattern.

G. 175*a*. Dish, oval. Diameters, 9 inches and 7½ inches. Centre plain; border pressed.

G. 176. Dish, circular. Diameter, 14¾ inches. Centre plain; border pressed with scroll-work, basket and diaper pattern, &c.

G. 176*a*. Dish, circular. Diameter, 9 inches. Edge shaped; border pierced with diamond pattern; the whole surface of the plate pressed with basket-work, scroll-pattern, and diaper-work.

Presented by Mrs. Elizabeth Warne, 1874.

G. 176*b*. Dish, oval. Diameters, 14 inches and 10¾ inches. Body quite plain; edge ribbed.

G. 177.
G. 177*a*. } Two Dishes, oval. Same size as last. Centre plain; border pressed.

G. 178. Dish, oval. Diameters, 12 inches and 9¾ inches. Surface covered with embossed ornament, scroll-work, diaper and basket patterns.

G. 178*a*. Dish, circular. Diameter, 12 inches. Ornamented in similar style to last.

G. 179. Oval double-handled Tray, with perforated centre and border; pressed scroll-work running round the centre and basket-work round the border.

G. 180. Plate, circular. Diameter, 9 inches. Salt-glazed ware with pressed border, ornamented with diaper pattern. The centre shows an early example of printing in red upon the glaze from an engraving. Design, lion and fox (fig. 116, on next page).

G. 181. Plate, similar to last. Centre showing example of early transfer-printing in red. Design, girl offering grapes to a lad.

These plates were probably printed by Sadler and Green of Liverpool.

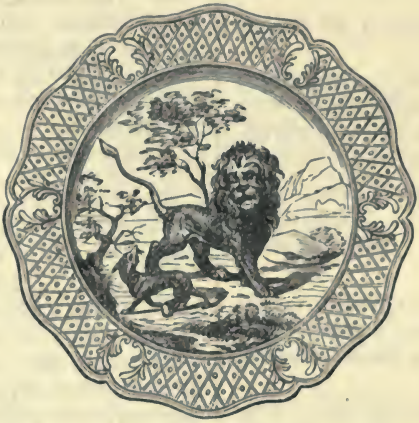
Nos. G. 101 to G. 181 (except G. 134, G. 169, G. 173, and G. 176a.) from Coll. Enoch Wood.

G. 182. **Tea-pot** and **Cover**. Height, 3½ inches. Painted with Chinese subject in brilliant enamel colours.

G. 183. **Tea-pot** and **Cover**. Height, 4 inches; greatest diameter, 4½ inches. Painted in enamel colours with flowers and birds, and with a key-pattern border round the neck.

Coll. Church.

Fig. 116.



G. 184. **Cream-jug**. Height, 5 inches: mounted on three lions' claws, with masks. Painted in enamel colours, with a Chinese musical party, and marked underneath with a thick cross in pink enamel, similar to that used in parts of the decoration.

Coll. Church.

G. 185. **Cream-jug**. Height, 4 inches; coarsely painted in enamel colours with flowers and butterfly.

G. 186. **Large Jug**. Height, 9½ inches; finely enamelled and gilt, with Chinese figures and conventional foliage: on front a shield of arms; *argent*, a chevron engrailed *azure*, between three leaves *proper;* crest, a squirrel sejant *or*, holding sprig of oak *proper* with acorns *or*.

Miscellaneous pieces of old Staffordshire Ware.

G. 187. **Bowl**. Height, 4 inches, diameter, 9¼ inches. Body brown; inside, cream-coloured, washed with slip of Devon clay, and ornamented with rudely incised figures of lions and fishes, scratched through with a style so as to expose the body, and then glazed. Dated 1755.

Coll. Enoch Wood.

G. 188. **Plate**, in white glazed ware. Diameter, 9¾ inches. Painted beneath glaze with cobalt blue, it the manner of some Delft ware; design, male figure standing on one leg, with landscape in Chinese style; edge pressed and touched with blue.

Coll. Enoch Wood.

G. 188*a*. **Plate**, in white glazed ware, painted under glaze in cobalt blue with grotesque figure and landscape in Chinese style; edge pressed and tinted deep blue.

G. 189. **Candlestick**, in white glazed ware. Height, 11 inches. Ornamented in relief with scroll-work and festoons tinted in blue.

Coll. Enoch Wood.

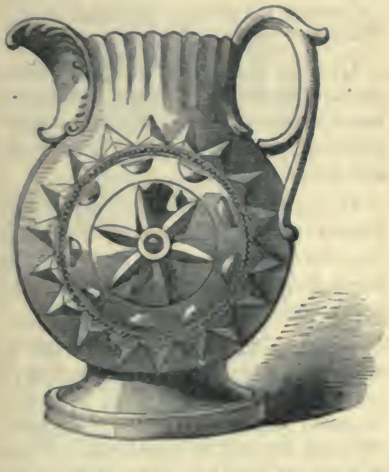
G. 190. Tea-pot and Cover, in white glazed ware, ornamented in relief with classic urns, and scroll-work and festoons, tinted deep blue; knob of cover wanting.

G. 191. Quart Jug, after a Dutch pattern, in white glazed ware, with mask under spout, and handle in form of a figure holding a bottle; painted in blue with Chinese scenes.
Coll. Enoch Wood.

G. 192. Stand for a Basket, in white glazed ware, with flowers printed in blue under the glaze.
Coll. Enoch Wood.

G. 193. Puzzle Jug (fig. 117). Height, 9 inches. White glazed ware; centre perforated with circular opening covered with star-shaped grating, through which is seen the figure of a boy seated on a cask and holding a bunch of grapes.
Coll. Enoch Wood.

Fig. 117.



G. 194. Beaker. Height, 4¾ inches. Cream-coloured ware, rudely painted on biscuit in brown and green; rim broken. Date about 1758.

G. 195. Tea Caddy, in cream-coloured ware. Shape four-sided, with open diaper work on solid sides; edges tinted green.
Coll. Enoch Wood.

G. 196. Tea-pot and Cover, in "cauliflower ware" tinted green; probably manufactured by Whieldon.

G. 197. Basin, in "pine-apple ware," coloured green and orange, and highly glazed.

G. 197*a*. Basin, in cream-coloured ware, ornamented in relief with fruit tinted green, purple, and yellow; marked with a cross in purple under the glaze.

G. 198. Plate, octagonal, in cream-coloured ware, with border of raised flowers tinted purple and green.
Presented by H. Willett, Esq., F.G.S.

G. 199. Cream-Jug. Height, 4½ inches. Cream-coloured ware; ribbed body, ornamented in relief with fruit tinted green and purple.
Coll. Enoch Wood.

G. 200. Small Cream-Jug. Height, 3 inches. Cream-coloured ware, edged in gold, and painted in red and green with fishing scene, &c.

G. 201. Coffee-cup, in cream-coloured ware, coarsely painted with flowers in red.

G. 202. Tea-pot and Cover. Height, 7 inches. Body globose, mounted on foot, and painted in colours with a ship and flowers, and inscribed "I. B. 1778."

G. 203. Tea-pot and Cover. Height, 5½ inches. Cream-coloured ware, rudely painted with cherries in red and black.

G. 204. Tea-pot and Cover, Height, 6 inches. Cream-coloured ware, rudely painted in colours with female figure in costume of the period on one side, and with flowers on the other; knob moulded in form of flower and gilt.

G. 205. Cover of Tea-pot, ornamented with figures of cherubs in black transfer-printing, coarsely painted in colours by Mensor, a Frenchman, about 1768; edge gilt.

G. 206. Tea-pot and Cover. Height, 6 inches. Cream-coloured ware ornamented in early transfer-printing in black outline, painted in colours in same style as last. Design, on one side Aurora in her chariot; and on the other, the Eastern hemisphere with sun and moon; on the cover, floating cherubs, similar to those on last piece.

These examples of early transfer-printing were probably executed by Sadler and Green, of Liverpool.

G. 207. Ornament, representing a pigeon in her nest with a young one; painted in proper colours.

G. 208. Small Cup, supported on a leaf, with rustic handle. Cream-coloured ware, painted.

G. 208*a*. Dial Plate, 10 inches in diameter; cream-coloured glazed ware, with numerals painted in greenish black under the glaze; slight scrolls in centre, and an oil-gilt border.

Coll. Enoch Wood.

G. 209. Sauce-boat, fruit-shaped mounted on a leaf, with rustic handles; plain cream-coloured ware.

Coll. Enoch Wood.

G. 210. Blancmange Mould, in form of a small eight-rayed star; cream-coloured ware.

G. 211. Small Cup, in plain cream-coloured ware; body fluted.

G. 212. Cup and Saucer, in cream-coloured ware, with example of early transfer-printing in black. Design, on one side a garden scene with harlequin and lady, and on the other side a cottage with sheep.

The cream-ware of which this and several of the succeeding pieces are composed, may be Staffordshire ware, perhaps early productions of Wedgwood; or, to judge from the colour and style, they may with almost equal probability be attributed to the Leeds factory. The transfer-printing on these early pieces was probably executed by Sadler and Green of Liverpool.

G. 213. Large Soup Tureen and Cover on Stand, in cream-coloured ware, ornamented with figures of peacocks in early black transfer-printing; handles twisted and terminated in floriated ornaments; border pressed.

Compare the style of this piece with that of the Leeds tureens, R. 18, 19, and with the Wedgwood tureen, G. 257.

G. 214. Stand for tureen similar to last, in plain cream-coloured ware with pressed sides.

G. 215. Plate, circular. Diameter, 10½ inches. Cream-coloured ware with peacocks in black transfer-printing, similar to that on No. G. 213.

Compare the printing with that on the Wedgwood plate, G. 224.

G. 216. Small Oval Dish, with perforated border, in cream-coloured ware, ornamented in black transfer-printing with peacocks similar to last piece.

G. 217. Tea-pot, in cream-coloured ware, ornamented in black transfer-printing with tea-drinking scene in a garden; pale impression; cover wanting.

G. 218. Tea-pot and Cover in cream-coloured ware, ornamented in red transfer-printing; on one side masonic emblems and inscription, "Deum time et Regem honora;" on the other side heraldic devices inscribed "Amor, Honor, et Justitia," and "Sit Lux et Lux fuit."

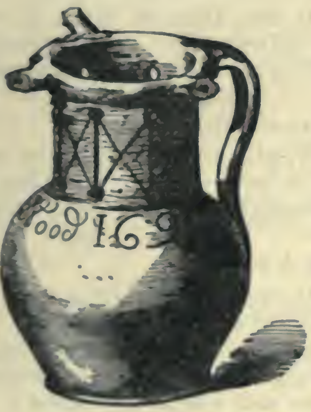
Wedgwood Ware.

[Wall Cases VI. to X.; upper shelves.]

G. 219. Puzzle Jug (fig. 118). Height, 5 inches. Coarse brown body, coated with green lead-glaze. Neck pierced; handle enclosing a channel leading from the bottom of the vessel to the rim, where it opens in three spouts; around the body an incised inscription "*John Wedg Wood, 1691.*"

This jug, which is believed to be unique, was the work of John Wedgwood, great uncle to Josiah Wedgwood, being the eldest brother to Josiah's paternal grandfather. John Wedgwood was born in 1654 and died in 1705. He was the grandson of Gilbert Wedgwood, the first of the name who settled in Burslem in the early part of the seventeenth century.* Another representation of this specimen, taken from the opposite side, is given in Jewitt's "Life of Wedgwood," p. 52.

Fig. 118.



G. 220. Mould for a Saucer, rudely incised with T. W. and other initials, and inscription "Thomas Wedgwood."

Coll. Enoch Wood.

As there were several potters of the Wedgwood family bearing the Christian name of "Thomas," it is difficult to refer this undated piece to its original maker.

G. 221. Dessert Plate, ornamented with vine in low relief, and coated with bright green lead-glaze; impressed mark,—

WEDGWOOD,

and figure 7.

G. 222. Plate in cream-coloured ware, with gilt feather-border and blue edging; impressed mark,—

WEDGWOOD.

G. 223. Plate in cream-coloured ware, painted with flowers in purple; pressed feather-edge.

Unmarked, but compare with the dish, G. 244, which is marked.

G. 224. Plate in cream-coloured ware, ornamented in early black transfer-printing with groups of peacocks similar to those on No. G. 215; impressed mark,—

WEDGWOOD,

and letter o.

G. 225. Plate in cream-coloured ware, edged in orange, and painted with flowers and insects; impressed mark,—

WEDGWOOD,

and letters DNU.

This is a modern piece of Wedgwood ware. Miss Meteyard has pointed out (*The Wedgwood Handbook*, p. 60), that whenever *three* capital letters are together "the piece is modern, possibly only a few "years old; certainly not older than 1845."

G. 226. Plate in white ware, with simple star-pattern printed in blue, forming a diapered ground, with compartments containing flowers and Chinese figure-subjects outlined in black transfer-printing, and afterwards coloured by hand; edges of compartments gilt; mark impressed,—

WEDGWOOD.

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* These particulars concerning John Wedgwood were kindly furnished by Miss Meteyard.

G. 227. PLATE in white ware, with flowers in red transfer-printing; impressed mark,—

WEDGWOOD,

and letters SS.

G. 228. PLATE in white ware, with fluted border; centre decorated with group of flowers and fruit printed in colours; impressed mark,—

WEDGWOOD.

G. 229. PLATE in white ware, with fluted border; centre with classic scene printed in black and afterwards tinted by hand; impressed mark,—

WEDGWOOD.

G. 230. PLATE in white ware, with large flowers boldly painted on lilac ground; impressed mark,—

WEDGWOOD,

and figures 22.

G. 231. PLATE in white ware, with flowers in blue transfer-printing; impressed mark,—

WEDGWOOD,

and letter D impressed; and B in blue.

G. 232. PLATE in white ware, with Chinese scene in brown transfer-printing; impressed mark,—

WEDGWOOD,

and letters AA.

Presented by W. Taunton, Esq.

G. 233. SMALL PLATE, 7 ins. diam., in white ware, with conventional foliage outlined in brown printing and enamelled in red and blue with gilt edging; impressed mark,—

WEDGWOOD,

and letters HH.

G. 234. OPEN-WORK BASKET, circular, in cream-coloured ware; impressed mark,—

WEDGWOOD,

and letter B in red.

G. 235. SMALL OPEN-WORK BASKET, oval, in cream-coloured ware; impressed mark,—

WEDGWOOD.

G. 236. LARGE OPEN-WORK BASKET, oval, in white ware, tinted in blue; impressed mark,—

WEDGWOOD.

G. 237. DESSERT DISH in form of conventional shell, with simple border printed in blue, and pressed edge tinted blue; impressed mark,—

WEDGWOOD.

G. 238. DESSERT DISH, in similar style to last, with gilt edge; impressed mark,—

WEDGWOOD.

G. 239. DESSERT DISH, in form of a pecten valve, tinted pink; impressed mark,—

WEDGWOOD.

G. 240. DESSERT DISH, in form of a pecten valve, tinted in proper colours; impressed mark,—

WEDGWOOD,

and letter U.

This is probably a piece of modern Wedgwood ware, and the same remark may be applied to the next piece.

G. 241. DESSERT DISH, in form of a large pholas valve, tinted in natural colours; impressed mark,—

WEDGWOOD,

and letter R.

G. 242. DESSERT DISH, in form of a leaf, coloured with tints of autumnal foliage; impressed mark,—

WEDGWOOD,

and 4 K.

G. 243. DESSERT DISH, in cream-coloured ware, painted and gilt. In centre, arms of the extinct Sussex family of *Dorrien;* with borders of vine and Greek anthemion; impressed mark,—

WEDGWOOD,

and the letter 𝔞.

G. 244. DESSERT DISH, in Queen's ware, painted in purple with rose, jasmine, and convolvulus; feather-edge pressed and tinted; impressed mark,—

WEDGWOOD.

G. 245. **Dessert Dish**, shaped as quadrant of a ring, forming one of a set of four; 6 inches wide; cream-coloured ware, with simple floral border painted in brown on primrose-coloured ground; impressed mark,—

WEDGWOOD.

G. 246. **Dessert Dish**, of similar shape to last piece, with husk-border in brown on vermilion ground; impressed mark,—

WEDGWOOD,

and letter U.

G. 247. **Large Dish**, in coarse white ware; 20½ inches by 15½ inches; printed in blue under the glaze, with scene and border of flowers; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case IX.)

G. 248. **Dish**, in cream-coloured ware; diamond shaped, with feather-border painted in red on a brown riband; impressed mark,—

WEDGWOOD, ETRURIA.

G. 249. **Oval Dish**, in cream-coloured ware; basket pattern, with pierced border, edged in green; impressed mark,—

WEDGWOOD.

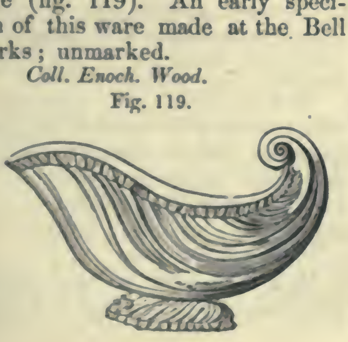
G. 250. **Fish Dish**, in cream-coloured ware; oblong shape, octagonal, with two fish in low relief; impressed mark,—

WEDGWOOD.

G. 251. **Butter-boat**, in Queen's ware (fig. 119). An early specimen of this ware made at the Bell Works; unmarked.

Coll. Enoch. Wood.

Fig. 119.



G. 252. **Tea Canister**, in cream-coloured ware, printed at Liverpool in early black transfer over the glaze; on the one side a tea-drinking scene in a garden, and on the other side a shepherd and sheep; impressed mark,—

"Wedgwood."

Coll. Enoch. Wood.

This piece is figured in Miss Meteyard's *Life of Wedgwood*, vol. ii., p. 64.

G. 253. **Boat-shaped Dish.** Diameters, 10½ inches and 5 inches. Cream-coloured ware, with salmon-coloured border; sprinkled with star-shaped ornaments in brown and gold; impressed mark,—

WEDGWOOD,

and letter P.

G. 254. **Six Knife-hafts**, in cream-coloured ware; painted with vine, oak, autumnal leaves, dairy implements, &c; unmarked.

G. 255. **Tea-pot**, in cream-coloured ware, printed on the glaze in purple transfer; impressed mark,—

WEDGWOOD.

On one side a tea-drinking party in costume of the period; on the other side the following stanza:

"Kindly take this Gift of mine,
"The Gift & giver I hope is thine;
"And tho' the value is but small,
"A loving Heart is worth it all."

Presented by the Rev. J. Allen.

G. 256. **Fish-slice**, in cream-coloured ware, pierced; with green and brown edge; mark impressed,—

WEDGWOOD.

G. 257. **Soup Tureen, Cover**, and **Stand**, in cream-coloured ware, with pressed border; mark impressed,—

WEDGWOOD.

(On top shelf of Wall Case VI.)

G. 258. **Large Centre-piece**, in cream-coloured ware, painted blue and green. Height, 24 inches; impressed mark,—

WEDGWOOD.

The foot supports a circular plateau, on which stands a vase bearing six hooks, springing from goats' masks, for suspension of baskets; the fluted neck terminates in floriated ornament forming six other hooks round the mouth of the vase, which is closed by a stopper in form of pineapple.

(On top shelf of Wall Case VI.)

G. 259. Chestnut Basket, with open-work Cover, in cream-coloured ware, decorated with embossed ornament and twisted handles; impressed mark,—

WEDGWOOD,

and a large letter P.

(On top shelf of Wall Case VI.)

G. 260. Female Bust representing Sadness, painted in natural colours. Height, 22 inches; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case VIII.)

G. 261. Bowl and Plateau, in white ware, with pierced edge; body ornamented in low relief with acanthus leaves and quatrefoils; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case VII.)

G. 262. Compotier in similar style to last; the body with a diaper of quatrefoils, and the border pierced; impressed mark,—

WEDGWOOD, ETRURIA.

(On top shelf of Wall Case VII.)

G. 263. Cup and Saucer in early cream-coloured ware, painted with trophies in brown camaieu; impressed mark,—

WEDGWOOD.

The cup has no handle, and its base is sunk into a deep well in the saucer so as to secure stability.

Presented by W. H. Goss, Esq.

G. 264. Cup and Saucer, in early cream-coloured ware, edged with orange and painted with autumnal leaves; impressed mark,—

WEDGWOOD,

and figure 2.

Coll. Bandinel.—Presented by Dr. Page.

G. 265. Cup and Saucer, in cream-coloured ware, painted with flowers in purple; border pressed; double-twisted handle; impressed mark,—

WEDGWOOD.

G. 266. Cup and Saucer, in cream-coloured ware, edged with orange, and painted with flowers and insects; impressed mark,—

WEDGWOOD.

G. 267. Cup and Saucer, in cream-coloured ware, edged with gold, and ornamented with flowers printed in black outline, and afterwards coloured by hand; impressed mark,—

WEDGWOOD.

G. 268. Breakfast Cup and Saucer in plain white ware, printed in black "*Nursery;*" impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case V.)

G. 269. Two-handled Cup and Saucer, in plain white ware, gilt edged; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case VI.)

G. 270. Two-handled Cup, Cover, and Stand, in plain white terra-cotta, glazed inside; impressed mark,—

WEDGWOOD.

It is probable that these pieces in the white were intended to be decorated by amateurs. See Addenda, p. 312.

G. 271. Mug and Saucer, in white ware, with view of shipping-port in brown transfer-printing; impressed mark,—

WEDGWOOD,

and triangle printed in brown.

This is a modern piece.

G. 272. Saucer, painted and gilt, with conventional foliage in oriental style; impressed mark,—

WEDGWOOD,

and three dots in blue.

G. 273. COFFEE-CUP and SAUCER, with flowers in oriental style printed in cobalt blue, under the glaze, and the ground painted over the glaze with scale-pattern in vermilion; unmarked.

G. 274. TEA-CUP, in same style as last.

G. 275. STAND for SIX EGG-CUPS in same style.

G. 276 to G. 278. THREE EGG-CUPS to fit the stand. Nos. G. 273 to G. 278 form a portion of the breakfast service made by Wedgwood for George III. for use at Gloucester Lodge, Weymouth.

Presented by Hugh Owen, Esq.

G. 279. EGG-CUP, in cream-coloured ware, with floral border painted in green and crimson; impressed mark,—

WEDGWOOD.

G. 280. PEN-TRAY, in drab glazed ware, mounted on four claws; impressed mark,—

WEDGWOOD,

and letter G.

G. 281. DRINKING-VESSEL, in form of a hound's head, painted in natural colours; marked in red,—

WEDGWOOD,

and date 1776.

G. 282. SAUCE-BOAT and COVER in white ware, with pressed edge tinted in blue; cover surmounted by figure of a sea-horse; impressed mark,—

WEDGWOOD.

G. 283. SUGAR-BASIN, in pearl ware, edged in gold, and decorated with flowers printed in black outline and afterwards coloured; impressed marks,—

WEDGWOOD, and PEARL.

"The word 'Pearl' renders this example of value. Hitherto it had been doubtful if Wedgwood by the term 'Pearl Ware' meant ware *much* whiter than cream-colour, or ware with a faintly-pink tint. The question is now set at rest, and 'pearl ware' is seen to be extremely white, and the precursor of the ordinary white ware of the present day."—*Miss Meteyard's Wedgwood Handbook*, 1875, p. 55.

G. 284. CULLENDER, in form of a scallop-shell; chocolate ground, splashed with green; impressed mark,—

WEDGWOOD.

G. 285. BASIN, in white ware, with conventional foliage in oriental style printed in blue and touched with gold; impressed mark,—

WEDGWOOD.

G. 286. VASE in shape of flower-pot, with perforated cover for cut flowers. White ware, coated with mottled iridescent glaze; impressed mark,—

WEDGWOOD.

This vase has been furnished with a handle springing from the two sides, the bases of which remain.

G. 287. FONT, for suspension against a wall, in plain cream-coloured ware; impressed mark,—

WEDGWOOD.

G. 288. DOUBLE-HANDLED FEEDING-VESSEL for the nursery, in plain cream-coloured ware; impressed mark,—

WEDGWOOD.

G. 289. DOUBLE-HANDLED CREAM-JUG, with two spouts, in brown glazed "Rockingham ware;" unmarked.

G. 290. SMALL CREAM-JUG, in white stone-ware, ornamented in relief with band of flowers in blue; impressed mark,—

WEDGWOOD,

and a large letter A.

G. 291. DOUBLE-HANDLED BASIN and COVER, in drab-coloured stoneware, decorated in relief with acanthus leaves and other Greek ornaments in blue and lilac; impressed mark,—

WEDGWOOD.

G. 292. QUART JUG and COVER, in drab-coloured stone-ware, ornamented in white relief with classic figures of Bacchus, Pan, a satyr, &c.; beneath the spout a mask, and around the neck a border of vine; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case IX.)

G. 293. BUTTER-COOLER and COVER, in white terra-cotta, ornamented in relief with band of vine leaves; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case VIII.)

G. 294. VESSEL, in several parts, forming both tea-pot and coffee-pot, in plain white glazed ware; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case VIII.)

G. 295. TEA-POT and COVER, in white stone-ware, ornamented in relief with band of Roman scroll-work; the cover surmounted by figure of a spaniel; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case VIII.)

G. 296. TEA-POT and COVER, in plain red jasper ware, glazed inside; impressed mark,—

WEDGWOOD.

G. 297. TEA-POT and COVER, in red ware, ornamented in relief with Egyptian figures in black; cover surmounted by figure of a crocodile; glazed inside; impressed mark,—

WEDGWOOD.

G. 298. COFFEE-POT and COVER, in red ware, ornamented with flowers enamelled and gilt; glazed inside; impressed mark,—

WEDGWOOD,

and letter Z.

G. 299. EWER and COVER, in plain red ware, glazed inside; impressed mark,—

WEDGWOOD.

G. 300. TEA-POT and COVER, in cane-coloured ware, with floral ornament embossed; glazed inside; impressed mark,—

WEDGWOOD.

G. 301. DOUBLE-HANDLED TAZZA, with perforated cover for cut flowers, in cane-coloured ware, ornamented in relief with frieze of anthemion and acanthus in dull green; impressed mark,—

WEDGWOOD,

and letters R K.

G. 302. INKSTAND, in form of a round pedestal or Roman altar. Height, 4¼ inches; diameter, 3¼ inches; cane-coloured ware, ornamented in red relief with military trophies, oval medallions, and floral festoons pendent from rams' heads; impressed mark,—

WEDGWOOD,

and letter D.

G. 303. GOBLET. Height, 5¾ inches; diameter of mouth, 3¾ inches; Cane-coloured ware ornamented outside with embossed basket pattern, and glazed inside; impressed mark,—

WEDGWOOD,

and figure 3.

G. 304. CANDLESTICK. Height, 8¼ inches. Cane-coloured ware with embossed basket pattern, glazed; base octagonal, with border of acanthus leaves; impressed mark,—

WEDGWOOD.

G. 305. TABLE ORNAMENT, in form of raised cake. Fawn-coloured ware ornamented in white-relief; oval top with musical trophy surrounded by garland; impressed mark,—

WEDGWOOD,

and letter G.

G. 306. LARGE OVAL PIE-DISH and COVER in buff-coloured ware, ornamented with band of vine leaves and grapes in relief; impressed mark,—

WEDGWOOD,

and letter A.

(On top-shelf of Wall Case VI.)

Dishes representing baked pie-crust were made by Wedgwood in times of scarcity, in order to avoid the use of flour. In the *Life of George Brummell* * it is said that "the scarcity two years after Brummell's retirement, viz., in July 1800, was so great that the consumption of flour for pastry was prohibited in the Royal Household, rice being used instead; the distiller left off malting, hackney-coach fares were raised twenty-five per cent. and Wedgwood† made dishes to represent pie-crust."

G. 307. BASIN, in bamboo-ware. Height, 3¾ inches; diameter of mouth, 7¾ inches. Embossed surface tinted blue and white; impressed mark,—

Wedgwood,

and figure 2.

G. 308. TWO-HANDLED VASE and COVER, in "granite ware." Height, 13 inches; greatest diameter of body, 5 inches. Cream-coloured ware sprinkled with blue; ornamented in relief with group of three amorini eating grapes, a band of laurel round the neck, and two handles terminating in floriated ornament; mounted on square plinth of black Egyptian ware, stamped in relief in a circle,—

WEDGWOOD & BENTLEY, ETRURIA.

G. 309. OVIFORM AMPHORA and COVER, in "onyx ware." Height, 8 inches; greatest diameter of body, 3½ inches. Marbled body with gilt handles in form of horns springing from Bacchanalian masks; mounted on square plinth of white jasper ware, with impressed egg-and-tongue border; stamped,—

Wedgwood & Bentley.

G. 310. GOBLET in black Egyptian ware, or "basaltes." Height, 6½ inches; diameter of mouth, 3¾ inches. Ornamented in front with oval medallion, bearing classical figure-subject in bas-relief; stamped in relief in a circle,—

WEDGWOOD & BENTLEY, ETRURIA.

The medallion on this piece has been cracked in the firing.

G. 311. STATUETTE of SPHINX in black Egyptian ware, mounted on oblong plinth, 12¼ inches by 5¼ inches; unmarked.

Figured in Miss Meteyard's *Life of Wedgwood*, vol. ii. p. 159.

G. 312. BULB-POT in form of porcupine, modelled in black Egyptian ware; impressed mark,—

WEDGWOOD.

G. 313. MUG in black Egyptian ware. Height 6¾ inches; diameter, 5 inches. Ornamented in low relief with two infant sportsmen bearing a stag's head and leading a hound; rim mounted in silver; impressed mark,—

WEDGWOOD.

G. 314. INKSTAND, with octagonal base, in plain black ware; impressed mark,—

Wedgwood & Bentley,

and large figure 30.

G. 315. OVIFORM AMPHORA and COVER in black Egyptian ware. Height, 14 inches; greatest diameter of body, 6¼ inches. Handles in form of twisted serpents springing from classic masks; front ornamented in low relief with female figure holding poppies to Cupid, emblematical of Night; unmarked.

Figured in Miss Meteyard's *Life of Wedgwood*, vol. ii., p. 144.

G. 316. DOUBLE-HANDLED TAZZA, in plain black Egyptian ware. Height, 4¼ inches; diameter, 7 inches; impressed mark,—

WEDGWOOD,

and No. 906 scratched in paste.

G. 317. DOUBLE-HANDLED VASE. in plain black Egyptian ware. Height, 7 inches; greatest diameter of body 5¼ inches; impressed mark,—

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* Life of George Brummell, Esq., by Capt. Jeffs, 1844, vol. i. p. 49.

† As Josiah Wedgwood died in 1795, this must have reference only to the firm of Wedgwoods.

WEDGWOOD,

and No. 673 scratched in paste.

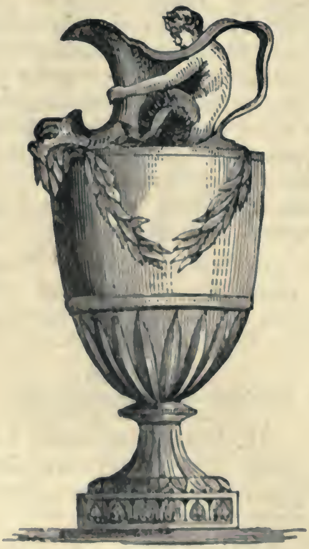
G. 318. DOUBLE-HANDLED VASE in black Egyptian ware. Height, 11¼ inches; greatest diameter, 6 inches. Oviform body, ornamented with oval medallion bearing figures of the three Graces in low relief; two handles in form of acanthus leaves, from which floral festoons depend; impressed mark,—

WEDGWOOD & BENTLEY, ETRURIA.

G. 319. VASE or EWER in black Egyptian ware (fig. 120). Height, 16 inches; greatest diameter of body, 6½ inches. Design emblematic of Water; a seated Triton, surrounded by the sea, clasps the neck, which is ornamented with a dolphin's head; body decorated with festoon of bulrushes and border of leaves; mounted on square plinth with anthemion border; impressed mark,—

WEDGWOOD.

Fig. 120.



G. 320. VASE or EWER in black Egyptian ware. Height, 13 inches; diameter of body, 5½ inches. Handle in form of dolphin's tail, arched; body oviform, ornamented with festoons of drapery pendent from circular medallions and from grotesque masks under spout and handle; neck with border of meander ornament; mounted on plain square plinth; impressed mark,—

WEDGWOOD & BENTLEY, ETRURIA.

G. 320*a*. VASE in plain black Egyptian ware, with two handles. Height, 9 inches; impressed mark,—

WEDGWOOD,

and No. 103 scratched in paste.

G. 321. EWER and COVER, with trefoil lip, in plain black Egyptian ware; height, 11 inches; greatest diameter of body, 5 inches; impressed mark,—

WEDGWOOD.

G. 322. BUST of CONELIUS DE WITT, in black Egyptian ware. Height, 24 inches; impressed mark,—

WEDGWOOD & BENTLEY.

(On top shelf of Wall Case VIII.)

Cornelius de Witt, a famous Dutch statesman, was born at Dort in 1623. After the overthrow of the Orange party in 1650, he held several public appointments, and subsequently served on board the fleet of De Ruyter. In 1674 he was arrested on a false accusation, and while in prison at the Hague, he and his brother were murdered by an infuriated mob.

Wedgwood's life-sized busts of Dutch patriots were modelled about the year 1779, and had a large sale in Holland.

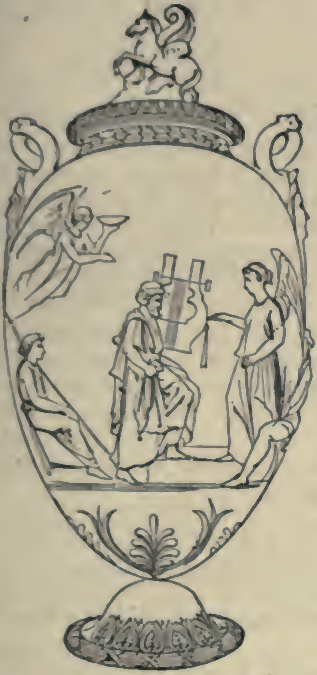
G. 323. OVIFORM AMPHORA and COVER, in black Egyptian ware (fig. 121). Height, 17 inches; greatest diameter, 9 inches. Handles in form of serpents springing from head of Medusa; body ornamented in relief with classic group representing the apotheosis of Homer; cover surmounted by a Pegasus; impressed mark,—

WEDGWOOD,

and letter V.

(On top shelf of Wall Case IX.)

Fig. 121.



G. 324. Lamp in black Egyptian ware (fig. 122). Height, 14 inches. Base triangular, with three classic figures grouped around a central shaft which supports a shallow vase bearing three small burners in scallop shells; cover terminated by burner in form of palm tree, with three seated figures; impressed mark,—

WEDGWOOD.

G. 325. } G. 326. } Pair of Chimeras, with nozzles for candles, in black Egyptian ware (fig. 123). Height, 13¼ inches; impressed mark,—

WEDGWOOD.

Fig. 122.

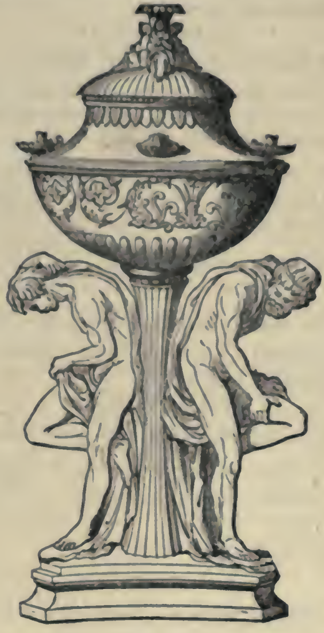
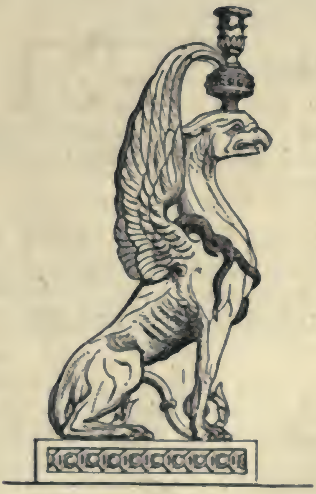


Fig. 123.



G. 327. } G. 328. } Pair of Flower-vases, mounted on Tripods, in black Egyptian ware, with classic ornament in relief. Height, 7 inches;

diameter of mouth, 3½ inches; impressed mark,—

WEDGWOOD

and one dated "2 FEBY. 1805."

Mr. Bragg, of Birmingham, possesses a similar piece with the figures transposed, so as to read "Feb. 2d. 1085."

G. 329. TEA-KETTLE and COVER, in black Egyptian ware; engine-turned pattern; unmarked.

(On top shelf of Wall Case IX.)

Presented by W. H. Goss, Esq.

G. 330. COFFEE-POT, in black Egyptian ware; ribbed pattern; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case IX.)

G. 331. COFFEE-POT and COVER, in black Egyptian ware; ribbed pattern; handles terminating in masks; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case IX.)

G. 332. CUP and SAUCER, in black Egyptian ware; ribbed pattern; impressed mark,—

WEDGWOOD,

and figure 2,

G. 333. CUP and SAUCER, in black ware, with simple border painted in red and white; impressed mark,—

Wedgwood.

G. 334. JUG, with trefoil lip; black ware, with body painted red, leaving figures in black, touched with white enamel; impressed mark,—

WEDGWOOD.

G. 334*a*. OVAL PLAQUE, in black ware, with aerial female figure or "danzatrice" in relief; unmarked.

G. 335. DOUBLE-HANDLED TAZZA, in black ware, with two covers, one being perforated for cut flowers. Height, 7¼ inches; diameter, 9¼ inches. Body ornamented in red relief with band of vine leaves and grapes; base with red embossed ornaments; impressed mark,—

WEDGWOOD,

and letters RK.

(On top shelf of Wall Case X.)

G. 335*a*. DOUBLE - HANDLED TAZZA, in white stone-ware, with band of vine leaves in brown relief ornament; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case X.)

G. 336. LARGE DOUBLE-HANDLED VASE and COVER, in Etruscan style. Height, 21½ inches; greatest diameter, 11 inches. Black ware, painted with classic figures in red and white encaustic colours; impressed mark,—

WEDGWOOD.

(On top shelf of Wall Case X.)

G. 337. DOUBLE-HANDLED VASE, resembling an Etruscan Oxybaphon. Height, 8 inches; diameter of mouth, 8¼ inches. Black ware, painted with dancing figure in red and white encaustic colours; impressed mark,—

WEDGWOOD.

G. 338. AMPHORA, in Etruscan style. Height, 12¾ inches; greatest diameter of body, 7 inches. Black ware, painted with classic figures in red and white encaustic colours; impressed mark,—

WEDGWOOD,

and letter O. with No. 439 scratched in the paste.

G. 339. OVIFORM AMPHORA, in pale blue jasper ware with cameo figures in white. Height, 10½ inches; greatest diameter, 4¾ inches. Body ornamented with frieze of figures representing a mother and infant, with children playing; band of laurel round neck; handles springing from lions' masks; impressed mark,—

WEDGWOOD,

with a small incised square mark.

G. 340. OVIFORM AMPHORA and COVER, in pale blue jasper ware with cameo figures in white. Height, 15¼ inches; greatest diameter, 6½ inches. Body ornamented with frieze of figures representing Apollo and the nine Muses; floriated handles in white; cover surmounted by a white figure of Pegasus; square plinth with border of anthemion; impressed mark,—

WEDGWOOD,

with a small incised square mark.

G. 341. **Cup and Saucer**, in white stone-ware, coated with deep blue jasper dip and ornamented in white relief with fern-fronds and border of hippuris; impressed mark,—

WEDGWOOD.

Presented by the Rev. Greville J. Chester, M.A.

G. 342. **Copy of the Barberini or Portland Vase**, in black ware with bas-reliefs in white. Height, 10 inches; greatest diameter, 7½ inches.

This is one of the original fifty copies made by Wedgwood, and was obtained from Mr. Charles Darwin, F.R.S., one of Wedgwood's descendants. The original vase is formed of dark blue transparent glass with the bas-reliefs laid on in white semi-opaque paste. It was discovered between the years 1623 and 1644, in a marble sarcophagus buried beneath the mound called Monte de Grano, near Rome, which was opened by order of Pope Barberini (Urban VIII.). The sarcophagus was formerly supposed to be that of the Emperor Severus and his mother Mamaea, who were slain in Germany, A.D. 235. The vase was brought to England by Sir W. Hamilton in 1784, and purchased by the Duchess Dowager of Portland. At the sale of her museum in 1786 it was bought in by the Duke of Portland for 1,029*l.*,* and was then lent to Wedgwood for the purpose of being copied. The vase is now in the British Museum, where some years ago it suffered violent injury. The period of its manufacture and the subjects of its bas-reliefs remain uncertain.

G. 343. **Large Vase** in form of Greek crater. Height, 2 feet 9 inches; greatest diameter, 18 inches. For form and design see frontispiece. Copy of a Greek vase in the British Museum (No. 1567), belonging to the latest period of vase painting known as the style of the Basilicata, and supposed to be not earlier than 200 B.C.

Presented by the late Apsley Pellatt, Esq., M.P.

The original of this vase was formerly in Sir W. Hamilton's collection. This copy was the largest work executed by Wedgwood; it is mounted on a pedestal in front of a column near Wall Case I.

The following pieces of Wedgwood's ware have been added to the collection since the publication of the last edition of this Catalogue:—

G. 344. **Plate**, 9 inches in diameter; cream-ware, ornamented with a simple running border of wheat and corn-flower painted in brown and blue; impressed mark,—

WEDGWOOD

and a star.

G. 345. **Plate**, 8 inches in diameter; white ware, with border of wild roses painted in proper colours on purple ground in six compartments, edged in black; impressed mark,—

WEDGWOOD,

and two diamonds.

Compare this plate with the pieces of Herculaneum ware, S. 1 and S. 2, p. 245. The patterns are identical in the two cases.

G. 346. **Dessert Plate**, 8¾ inches in diameter; ornamented with stamped wicker-pattern and wreaths of vine and oak; deep yellow ground, with purple centre, and dark blue wreaths, the whole brilliantly glazed; impressed mark,—

---

* A copy of the catalogue of the Portland Museum, in the Library of this Institution, has the sum for which each lot was sold marked in manuscript, together with the name of the purchaser.

WEDGWOOD,

with letter F and figure 8.

Presented by H. Willett, Esq., F.G.S.

Some of the colours on this specimen have run, the blue of the wreaths blending with the yellow to form a green. The blurred colours, the peculiar glaze, and the brown blotches on the back would seem to indicate that this piece had been the subject of some experiments at the works.

G. 347. Toy Plate, 4 inches in diam.; drab glazed ware, with gilt edge; impressed mark,—

WEDGWOOD,

and a heart-shaped stamp.

G. 347*a*. Large circular Plateau, 17½ inches in diameter; cream ware painted with flowers; impressed mark,—

WEDGWOOD,

and letter V.

(On top shelf of Wall Case X.)

G. 348. Cup, conical shaped; 2½ inches high, 2¾ ins. wide at mouth, Cream-ware printed with vignettes after Bewick; on one side a boy on a goat, and on the other side children playing with a spaniel; impressed mark,—

WEDGWOOD.

Presented by H. Willett, Esq., F.G.S.

G. 349. Cup and Cover; height, 3 inches; diameter; 2¾ ins.; white ware, printed in blue with flowers; edge gilt; impressed mark,—

WEDGWOOD,

and four dots.

G. 350. Breakfast Cup and Saucer, in white glazed ware ornamented with gilt border of Greek fret or meander pattern; impressed mark,—

WEDGWOOD.

G. 351. Mug; height, 3½ inches; diameter, 2½ ins.; white ware, painted with flowers on green ground, and edged in blue; impressed mark,—

WEDGWOOD,

and four dots.

G. 351*a*. Sucrier and Cover, in unglazed drab ware, ornamented with white borders in relief, and with six small classic figure-groups laid on in white; impressed mark,—

WEDGWOOD,

and a small stamped cross.

G. 352. Sauce Boat, in cream-ware, with green feather-edge; impressed mark,—

WEDGWOOD.

G. 352*a*. Asparagus Dish, in similar ware; impressed mark,—

WEDGWOOD.

G. 353. } Two Chessmen, 2½
G. 353*a*. } inches high, in white jasper ware, on circular plinths, one coloured dark blue; impressed mark on each,—

WEDGWOOD,

with the letter A, figure 8 or 3, and some trivial marks.

These figures, from Mr. Bagshawe's sale, are the last two represented in Miss Meteyard's group on p. 493 of her "Life of Josiah Wedgwood." The celebrated sets of chessmen, made so extensively by Wedgwood, were designed by Flaxman in 1785.

G. 354. Basin, 2½ inches high, 5 inches in diameter; white jasper-ware with relievo ornament in colours; on the body five oval medallions with classic subjects in white cameo work on lilac ground with beaded borders, and festoons of ivy in sage-green jasper with lilac-coloured berries; around the base a border of acanthus leaves in sage-green, and a running leaf-border of same colour round the rim; impressed mark,—

WEDGWOOD.

G. 355. Nine Pyrometer-pieces, or cylinders of clay for use in Wedgwood's Pyrometer.

A pyrometer is an instrument for measuring temperatures higher than the range of the ordinary mercurial thermometer. The instrument devised for this purpose by Wedgwood was described by him in a paper read before the Royal Society on May 9, 1782, and published in the *Philosophical Transactions*, under the following title :—"An Attempt to make a Thermometer for measuring the higher Degrees of Heat, from a Red Heat up to the strongest that Vessels of Clay can support. By Josiah Wedgwood; communicated by Sir Joseph Banks, Bart., P.R.S." (vol. lxxii. pp. 305–326). The purest Cornish china-clay, having been washed and passed through fine lawn, was dried, and a stock of the prepared clay kept ready for use. When required it was softened with water, and moulded into small cylinders, which, when dry, were accurately pared down to a diameter of $\frac{5}{10}$ of an inch, and were then ready for use in the pyrometer. This instrument consisted of two rods of brass, each 24 inches long, fastened to a brass plate, and placed $\frac{5}{10}$ of an inch apart at one end, but converging to $\frac{3}{10}$ of an inch at the other extremity. The pieces of prepared clay, when cold, exactly fitted the wide end of the gauge, but on exposure to the temperature of the furnace the clay contracted, and consequently the cylinders, on removal, would enter farther into the groove. The contraction which the piece had suffered was measured by a scale formed by the metal rods, which were divided into inches and tenths. It has been found, however, that the indications of this instrument are open to several sources of error; for example, a piece of clay exposed to a long-continued temperature may undergo the same amount of contraction as it would on exposure for a shorter time to a more intense heat. But although Wedgwood's pyrometer is not of much use as a scientific instrument for measuring high temperatures, it still holds its place in some potteries. Wedgwood believed that it would be "a measure of fire sufficient for every purpose of experiment or business," and he performed a series of experiments with it, showing the relative temperatures employed in firing different kinds of pottery, the temperatures being referred to an arbitrary scale. Thus he found that delft ware should be fired at a temperature of 40° or 41° of his pyrometer; cream-coloured or Queen's ware at 86°; and stone ware at 102°. He concluded from his experiments that the ancient Roman and Etruscan pottery had not been fired at above 32° or below 20°. A piece of an Etruscan vase melted completely at 33°, and a fragment of Roman ware at 36°; Worcester china vitrified at 94°; Mr. Sprimont's Chelsea china at 105°; Derby at 112°; Bow at about 121°; but Bristol showed no sign of vitrification at 135°. Many of the pyrometer pieces here exhibited are wrapped in paper printed "Joſiah Wedgwood, F.R.S. & A.S." Wedgwood was elected a Fellow of the Royal Society in 1783.

Wedgwood Cameos, &c.

The following collection of cameos and intaglios in Wedgwood ware has recently been arranged in two glass cases placed one on each side of the pillar opposite to Wall Case VIII. Each specimen is mounted in a gilt setting, which freely exposes the back. Nos. 1 to 189 form a fine series of black medallions in basaltes, bearing for the most part the mark of Wedgwood and Bentley; Nos. 190 to 194 are intaglios in basaltes; Nos. 195 and 196 are cameos in plain white ware; and the remaining specimens, Nos. 197 to 213, are examples of jasper cameos in two or more colours.

1. ARIADNE. Oval medallion in black basaltes, 2 inches by 1¾ in., with profile portrait in relief, stamped on back with name "ARIADNE;" unmarked.

2. HELENA, wife of Menelaus, king of Sparta. Similar medallion with name stamped on back; unmarked.

3. POLYXENA, daughter of Priam and Hecuba. Similar medallion, with name stamped on back; unmarked.

4. IPHIGENIA. Similar medallion with name ("IPHIGENA") stamped on back; unmarked.

5. CASSANDRA, daughter of Priam and Hecuba. Similar medallion,

stamped on back "CASSANDR.;" unmarked.

5. DIDO, daughter of Belus, king of Tyre. Similar medallion with name stamped on back; unmarked.

7. MAUSOLUS, king of Caria; reigned B.C. 377 to 353. Similar medallion stamped on back with name; unmarked.

8. ARTEMISIA, wife of Mausolus, and queen of Caria; reigned B.C. 352 to 350. Similar medallion, stamped on back with name; unmarked.

9. ALEXANDER and OLYMPIAS. Similar medallion; with double portrait, and small head of Alexander; with—

"Alexr. & Olympa"

scratched in paste on back of medallion; unmarked.

10. ALEXANDER EPIROTUS, died B.C. 326. Similar medallion, stamped on back "ALEX. EPIR.;" unmarked.

11. PTOLEMY LAGUS, first king of Egypt, flourished B.C. 324. Similar medallion, with—

"111, S. 1, 14"

scratched in paste on back of medallion; unmarked.

These figures scratched on the back refer to Wedgwood's Catalogue. In the present example they would mean, "Class III., Series 1, No. 14."

12. SELEUCUS NICATOR, king of Syria, flourished B.C. 312. Similar medallion, stamped on back "SEL. NIC.;" unmarked.

13. ANTIGONUS, king of Asia, died B.C. 220. Similar medallion, with—

"111, S. 1, 16"

scratched in paste on back of medallion; unmarked.

14. LYSIMACHUS, king of Macedonia, flourished B.C. 323 to 281. Similar medallion, stamped on back "LYSIMAC.;" unmarked.

15. ARSINOE, wife of Lysimachus. Similar medallion, with—

"111, S. 1, 19"

scratched in paste on back of medallion; unmarked.

16. NICOMEDES, king of Bithynia, flourished B.C. 278 to 250. Similar medallion, with—

"111, S. 1, 20"

scratched in paste on back of medallion; unmarked.

17. ARIOBARZANES, king of Pontus, flourished about B.C. 400. Similar medallion, with—

"111, S. 1, 21"

scratched in paste on back of medallion; unmarked.

18. ANTIOCHUS THEOS, king of Syria, flourished B.C. 261 to 246. Similar medallion with—

"111, S. 1, 22"

scratched in paste on back of medallion; unmarked.

19. ANTIOCHUS HIERAX, son of Antiochus Theos, flourished B.C. 246. Similar medallion, stamped on back "ANTIOC.III.;" unmarked.

20. ANTIOCHUS MAGNUS, king of Syria, flourished B.C. 223 to 187. Similar medallion, with—

"111, S. 1. 24"

scratched in paste at back of medallion; unmarked.

21. ARIARATHES V., king of Cappadocia, flourished B.C. 163 to 130. Similar medallion, stamped on back "ARIARE.EP.;" unmarked.

22. PRUSIAS, king of Bithynia, flourished B.C. 154. Similar medallion, stamped on back "PRUSIUS.R.;" unmarked.

23. PTOLEMY EUERGETES or PHYSCON, king of Egypt, flourished B.C.

247 to 222. Similar medallion, stamped on back "PTOL.PHYN. ;" unmarked.

24. Antiochus Cyzicenus, king of Syria, flourished B.C. 112 to 96. Similar medallion, with—

"111. S. 1, 28"

scratched in paste at back of medallion ; unmarked.

25. Antiochus Grypus and Cleopatra flourished about B.C. 90. Similar medallion, with double portrait, stamped on back "ANT. & CLEOPA. ;" unmarked.

26. Philippus Epiphanes, king of Syria, flourished B.C. 93. Similar medallion with—

"111, S. 1, 30"

scratched in paste at back of medallion ; unmarked.

27. Ariarathes IX., king of Cappadocia, flourished B.C. 42 to 36. Similar medallion, stamped on back "AREARETS ;" unmarked.

28. Minos. Similar medallion, with profile portrait in relief. with name stamped under the portrait, and impressed mark on back "Wedgwood and Bentley."

29. Theseus. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

30. Lycurgus, flourished about B.C. 825. Similar medallion, with name stamped under portrait and impressed mark on back "Wedgwood & Bentley."

31. Bias, flourished B.C. 559. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

32. Pittacus, died B.C. 569. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

33. Chilo, flourished B.C. 590. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

34. Solon, died B.C. 558. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

35. Thales, died B.C. 546. Similiar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

36. Heraclitus, flourished B.C. 513. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

37. Pythagoras, died B.C. 510. Similar medallion with name stamped under portrait, and impressed mark "Wedgwood & Bentley."

38. Aristides, flourished B.C. 490 to 468. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

39. Socrates, born B.C. 490, died 399. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

40. Zaleucus, flourished B.C. 660. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

41. Lysander, flourished B.C. 405. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

42. Conon, flourished B.C. 394. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

43. **ANTISTHENES**, flourished B.C. 396. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

44. **THRASYBULUS**, flourished B.C. 324. Similar medallion with name stamped under portrait ("THRASIBU."), and impressed mark on back "Wedgwood & Bentley."

45. **ARISTIPPUS**, flourished B.C. 392. Similar medallion, with name stamped under portrait, and impressed on back "Wedgwood & Bentley."

46. **ARISTOMACHUS**. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

47. **DEMOSTHENES**, born B.C. 385, died 322. Similar medallion, with name stamped under portrait ("DEMOSTHE."), and impressed mark on back "Wedgwood & Bentley."

48. **EPAMINONDAS**, flourished B.C. 371. Similar medallion, with name stamped under portrait ("EPAMINON.") and impressed mark on back "Wedgwood & Bentley."

49. **MAGO** and **DIONYSIUS** of Utica, flourished B.C. 368. Similar medallion, with double portrait and names stamped underneath; impressed mark on back "Wedgwood & Bentley."

50. **HIPPOCRATES**, born B.C. 460, died 357. Similar medallion, with name stamped under portrait ("HYPOCRATES"), and impressed mark on back "Wedgwood and Bentley."

51. **DEMOCRITUS**, born about B.C. 460, died 361. Similar medallion, with name stamped under portrait ("DEMOCRATES"), and impressed mark on back "Wedgwood & Bentley."

52. **ARCHYTAS**, flourished about B.C. 400. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

53. **PLATO**, born B.C. 429, died 347. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

54. **ISOCRATES**, born B.C. 436, died 338. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

55. **ÆSCHINES**, born B.C. 389, died 314. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

56. **CALLISTHENES**, died B.C. 338. Similar medallion, with name stamped under portrait ("CALYSTHENES"), and impressed mark on back "Wedgwood & Bentley."

57. **DIOGENES**, born about B.C. 412, died 323. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

58. **ARISTOTLE**, born B.C. 384, died 322. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

59. **XENOCRATES**, born B.C. 396, died 314. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

60. **EUCLID**, born B.C. 323, died 283. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

61. **THEOPHRASTUS**, died B.C. 287. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

62. **CRATES**, died B.C. 287. Similar medallion, with name stamped

under portrait, and impressed mark on back "Wedgwood & Bentley."

63. **Aratus**, flourished B.C. 251. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

64. **Zeno**, the Stoic, died B.C. 264. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

65. **Archimedes**, born B.C. 287, died 212. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

66. **Chrysippus**, born B.C. 280, died 207. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

67. **Appuleius**, flourished about B.C. 147. Similar medallion, with name stamped under portrait ("APULEUS,") and impressed mark on back "Wedgwood & Bentley."

68. **Carneades**, died B.C. 129. Similar medallion, with name stamped under portrait ("CARNIADES") and impressed mark on back "Wedgwood & Bentley."

69. **Asclepiades**, died B.C. 90. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

70. **Posidonius**, died B.C. 51. Similar medallion, with name stamped under portrait ("POSSIDONIUS"), and impressed mark on back "Wedgwood & Bentley."

71. **Pytheas**, of Colophon. Similar medallion, with name stamped under portrait ("PYTHIAS"), and impressed mark on back "Wedgwood & Bentley."

72. **Hesiod**, flourished about B.C. 735. Similar medallion, with name stamped under portrait, and impressed on back "Wedgwood & Bentley."

73. **Homer**. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

74. **Alcæus**, flourished about B.C. 607. Similar medallion, with name stamped under portrait ("ALCEUS"), and impressed mark on back "Wedgwood & Bentley."

75. **Sappho**, flourished about B.C. 600. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

76. **Anacreon**, flourished about B.C. 522. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

77. **Simonides**, flourished about B.C. 480. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

78. **Pindar**, died B.C. 442. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

79. **Euripides**, born B.C. 480, died 406. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

80. **Sophocles**, born B.C. 495, died 406. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

81. **Aristophanes**, born about B.C. 444, died 380. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

82. **Menander**, born B.C. 342, died 291. Similar medallion, with

name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

83. Posidippus, flourished B.C. 280. Similar medallion, stamped on back with name and impressed mark "Wedgwood & Bentley."

84. Theocritus, flourished about B.C. 268. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

85. Apollonius, of Rhodes, died B.C. 181. Similar medallion, with name stamped under portrait ("APPOLONIUS"), and impressed mark on back "Wedgwood & Bentley."

86. Romulus, the founder of Rome. Similar medallion, with name stamped under head and impressed mark on back "Wedgwood & Bentley."

87. Numa Pompilius, second king of Rome. Similar medallion, with name stamped under head ("NUMA"), and impressed mark on back "Wedgwood & Bentley."

88. Tullus Hostilius, third king of Rome. Similar medallion, with name stamped under head ("TULLUS"), and impressed mark on back "Wedgwood & Bentley."

89. Ancus Martius, fourth king of Rome. Similar medallion, with name stamped under head ("MARTIUS"), and impressed mark "Wedgwood & Bentley."

90. L. Junius Brutus. Similar medallion with name stamped under head ("BRUTUS"), and impressed mark on back "Wedgwood & Bentley."

91. M. Valerius Corvus, flourished about B.C. 337. Similar medallion with name stamped under portrait ("MV.CORVUS"), and impressed mark on back "Wedgwood & Bentley."

92. Hannibal, flourished about B.C. 208. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

93. Scipio Africanus Major, born B.C. 234, died B.C. 183. Similar medallion, with name stamped under portrait ("SCIPIO"), and impressed mark on back "Wedgwood & Bentley."

94. T. Quintius Flaminius, died B.C. 182. Similar medallion, with name stamped under portrait ("Q. FLAMINIUS"), and impressed mark on back "Wedgwood & Bentley."

95. Marius, born B.C. 157, died 86. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

96. Sulla, born B.C. 138, died 78. Similar medallion with name stamped under portrait, ("SYLLA"), and impressed mark on back "Wedgwood & Bentley."

97. Pompey, born B.C. 106, died 48. Similar medallion, with name stamped under portrait ("POMPEY M."), and impressed mark on "Wedgwood & Bentley."

98. Cicero, born B.C. 106, died 43. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

99. M. Junius Brutus, died B.C. 42. Similar medallion, with name stamped under portrait ("M. BRUTUS"), and impressed mark on back "Wedgwood & Bentley."

100. Sallust, born B.C. 86, died 34. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

101. M. Antonius, the Triumvir, born about B.C. 83, died 30. Similar medallion, with name stamped

under portrait, and impressed mark on back "Wedgwood & Bentley."

102. **Cleopatra**, died B.C. 30. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

103. **Varro**, born B.C. 116, died 28. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

104. **Virgil**, born B.C. 70, died 19. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

105. **Horace**, born B.C. 65, died B.C. 8. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

106. **Livy**, born B.C. 59, died A.D. 17. Similar medallion, with name stamped under portrait ("LIVE"), and impressed mark on back "Wedgwood & Bentley."

107. **Ovid**, born B.C. 43, died A.D. 18. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

108. **Agrippina**, wife of Germanicus, died A.D. 26. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

109. **Agrippa**, the Great, died A.D. 40. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

110. **Persius**, the Roman poet, born A.D. 34, died 62. Similar medallion, with name stamped under portrait ("PERSEUS POET"), and impressed mark on back "Wedgwood & Bentley.

111. **Seneca**, the philosopher, died A.D. 65. Similar medallion, with name stamped under portrait; unmarked.

112. **Julia**, daughter of Titus, flourished A.D. 79. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

113. **Sabina**, wife of Hadrian, flourished about A.D. 117. Similar medallion, with name stamped under portrait; unmarked.

114. **Antinous**, Hadrian's favourite, died A.D. 122. Similar medallion, with name stamped under portrait; unmarked.

115. **Faustina**, wife of Antoninus Pius, died A.D. 131. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

116. **L. J. Rusticus**, pupil of Paetus Thrasea, flourished A.D. 61. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

117. **Julius Cæsar**, born B.C. 100, died 44. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood and Bentley."

118. **Pompeia**, wife of Julius Cæsar, flourished B.C. 67. Similar medallion, with name ("POMPEA") stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

119. **Augustus**, born B.C. 63, died A.D. 14. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

120. **Tiberius**, reigned A.D. 14 to 37. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

121. **Agrippina**, wife of Germanicus, and mother of Caligula, flourished A.D. 17. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

122. **Caligula**, reigned A.D. 37 to 41. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

123. **Claudius**, reigned A.D. 41 to 54. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

124. **Messalina**, wife of Claudius, died A.D. 48. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

125. **Antonia**, daughter of Claudius, put to death by Nero, A.D. 66. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

126. **Nero**, reigned A.D. 54 to 68. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

127. **Octavia**, wife of Nero, died A.D. 62. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

128. **Galba**, reigned June A.D. 68, to Jan. 69. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

129. **Lepida**, wife of Galba. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

130. **Otho**, reigned from Jan. to April, A.D. 69. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

131. **Poppæa Sabina**, wife of Otho, and afterwards of Nero, died A.D. 65. Similar medallion with name stamped under portrait ("POPPELA"), and impressed mark on back "Wedgwood & Bentley."

132. **Vitellius**, reigned from January to December A.D. 69. Similar medallion, with name stamped under portrait and impressed mark on back "Wedgwood & Bentley."

133. **Petronia**, wife of Vitellius. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

134. **Vespasian**, reigned A.D. 70 to 79. Similar medallion with name stamped under portrait ("VESPATIAN"), and impressed mark on back "Wedgwood & Bentley."

135. **Domitilla**, wife of Vespasian. Similar medallion with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

136. **Titus**, reigned A.D. 79 to 81. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

137. **Julia**, daughter of Titus. Similar medallion, with name stamped under portrait; unmarked.

138. **Domitian**, reigned A.D. 81 to 96. Similar medallion, with name stamped under portrait, and impressed mark on back "Wedgwood & Bentley."

139. **Domitia**. Similar medallion, with name stamped under portrait and impressed mark on back "Wedgwood & Bentley."

140. **Nerva**, reigned A.D. 96 to 98. Similar medallion, with name stamped on back; unmarked.

141. Trajan, reigned A.D. 98 to to 117. Similar medallion, with name stamped on back; unmarked.

142. Hadrian, reigned A.D. 117 to 138. Similar medallion, stamped on back "ADRIAN;" unmarked.

143. L. Verus, reigned with M. Aurelius. A.D. 161 to 169. Similar medallion, with name stamped on back; unmarked.

144. M. Aurelius Antoninus, reigned A.D. 161 to 180. Similar medallion, with name stamped on back, "M. A. ANTONINUS"; unmarked.

145. Commodus, reigned A.D. 180 to 192. Similar medallion, with name stamped on back; unmarked.

146. Pertinax, reigned from January to March A.D. 193. Similar medallion, with name stamped on back; unmarked.

147. Didius Julianus, reigned A.D. 193. Similar medallion; stamped on back "D. JULIANUS;" unmarked.

148. Pescennius Niger, reigned A.D. 193. Similar medallion, with

"Piscenius Nig., 22,"

scratched in paste on back of medallion; unmarked.

149. L. Septimus Severus, reigned A.D. 193 to 211. Similar medallion, stamped on back "SEP. SEVERUS;" unmarked.

150. Clodius Albinus, died A.D. 197. Similar medallion, with

"Sep. Clodius, 21,"

scratched in paste on back of medallion; unmarked.

151. Caracalla, reigned A.D. 211 to 217. Similar medallion, with name stamped on back; unmarked.

152. Septimus Geta, reigned A.D. 211 to 212. Similar medallion, with

"Sept. Geta,"

scratched in paste on back of medallion; unmarked.

153. Macrinus, reigned from April A.D. 217 to June 218. Similar medallion, with name stamped on back; unmarked.

154. Diadumenianus, died A.D. 218. Similar medallion, with

"Diadumenus,"

scratched in paste at back of medallion; unmarked.

155. Elagabalus, reigned A.D. 218 to 222. Similar medallion, with

"Heliagabulus,"

scratched in paste at back of medallion; unmarked.

156. Alexander Severus, reigned A.D. 222 to 235. Similar medallion, with

"Alex. Severus,"

scratched in paste at back of medallion; unmarked.

157. Maximinus I., reigned A.D. 235 to 238. Similar medallion, with name stamped on back ("MAXIMINIUS";) unmarked.

158. Julius Verus Maximinus. Similar medallion, with

"Jul. Ver. Max., 29,"

scratched in paste on back of medallion; unmarked.

159. Gordianus I., reigned A.D. 238. Similar medallion, with name stamped on back; unmarked.

160. Gordianus II., reigned A.D. 238. Similar medallion, stamped on back "GORDIAN JUNIOR;" unmarked.

161. Pupienus, reigned A.D. 238. Similar medallion, with—

"Pupianus, 32."

scratched in paste on back of medallion; unmarked.

162. Balbinus, reigned A.D. 238. Similar medallion, with name and figure 33, scratched in paste on back; unmarked.

163. Gordianus III., reigned A.D. 238 to 244. Similar medallion with—

"Gordianus Pius, 34."

scratched in paste on back of medallion; unmarked.

164. Valens Hostilianus, flourished A.D. 240. Similar medallion, with name stamped on back, "VALENS HOS;" unmarked.

165. M. Julius Philippus, reigned A.D. 244 to 249. Similar medallion, stamped on back "PHILLIP ARAB.;" unmarked.

166. M. Julius Philippus, son of the preceding, died A.D. 249. Similar medallion, stamped on back "PHIL. JUN.;" unmarked.

167. Trajanus Decius, reigned A.D. 249 to 251. Similar medallion, with—

"Decius, 36."

scratched in paste on back; unmarked.

168. Q. Heren.Decius, flourished A.D. 249. Similar medallion, with—

"Q. Heren."

scratched in paste on back; unmarked.

169. Gallus, reigned A.D. 251 to 253. Similar medallion, with name and figure 37, scratched in paste on back; unmarked.

170. Volusianus, flourished A.D. 251. Similar medallion, with name stamped on back; unmarked.

171. Æmilianus, flourished A.D. 254. Similiar medallion, with name and figure 39 scratched in paste on back; unmarked.

172. L. Valerianus, reigned A.D. 253 to 260. Similar medallion, with name stamped on back; unmarked.

173. Gallienus, reigned A.D. 260 to 268. Similar medallion, with name stamped on back; unmarked.

174. S. Valerianus, flourished A.D. 254. Similar medallion, stamped on back "VALERIAN;" unmarked.

175. Postumus, reigned A.D. 258 to 267. Similar medallion, stamped on back "POSTHUM;" unmarked.

176. Quintilius, flourished A.D. 268. Similar medallion, stamped on back "QUINTILI;" unmarked.

177. Aurelianus, reigned A.D. 270 to 275. Similar medallion stamped on back "AURELIAN;" unmarked.

178. Tacitus, reigned from Sept. A.D. 275 to April 276. Similar medallion, with name stamped on back; unmarked.

179. Florianus, reigned A.D. 276. Similar medallion, with name stamped on back; unmarked.

180. Probus, reigned A.D. 276 to 282. Similar medallion, with name stamped on back; unmarked.

181. Carus, reigned A.D. 282 to 283. Similar medallion, with name stamped on back; unmarked.

182. Numerianus, reigned A.D. 283. Similar medallion, with name stamped on back; unmarked.

183. Carinus, reigned A.D. 284 to 285. Similar medallion with name impressed on shield; unmarked.

184. Diocletianus, reigned A.D. 284 to 305. Similar medallion stamped on back "DIOCLESIAN;" unmarked.

185. Maximianus, reigned A.D. 284 to 305. Similar medallion, with name stamped on back; unmarked.

186. Constantius, reigned A.D. 305 to 306. Similar medallion, with

“ VII., 61, Constantius,”

scratched in paste at back of medallion ; unmarked.

187. Galerius Maximianus, reigned A.D. 305 to 311. Similar medallion, stamped on back “ VAL. MAXIMI. ;” unmarked.

188. Maximinus, reigned A.D. 308 to 314. Similar medallion stamped on back “ MAXIMIN.” unmarked.

189. Constantinus, reigned A.D. 306 to 337. Similar medallion with name stamped on back ; unmarked.

190. Oval Intaglio in basaltes or black Egyptian ware ; 2¾ inches by 2¼ inches. Profile portrait of one of the Cæsars. Impressed mark on back,—

“ WEDGWOOD.”

191. Oval Intaglio in basaltes, for seal ; 1⅜ in. by ⅞ in. Subject Flora, after the antique ; impressed mark on back “ Wedgwood & Bentley, 322.”

192. Oval Intaglio in basaltes, for seal ; 1¼ in. by ¾ in. Subject, Pomona, after the antique ; unmarked.

193. Oval Intaglio in basaltes, for seal, $\frac{11}{16}$ in. by $\frac{9}{16}$ in. Subject, Head of Paris, after the antique ; impressed mark on back “ Wedgwood & Bentley, 93.”

194. Oval Intaglio in basaltes, for seal ; ⅝ in. by ½ in. Subject, Head of Neptune, after the antique ; impressed mark “ W. & B., 10.”

195. Oval Medallion in white terra-cotta ; 4 inches by 3¼ inches. Profile portrait of Admiral Keppel ; with name stamped underneath, and impressed mark on back,—

“ WEDGWOOD & BENTLEY.”

Wedgwood's portraits of Admiral Keppel were extremely popular about 1778. “ Mr. “ Byerley sold thousands of his portraits “ during his journeys in 1779, in the form “ of a cameo medallion as here given, and “ also in seals and busts.”—*Meteyard's Life of Wedgwood.*

196. Cameo Portrait of George III., in white jasper ware ; height 3 inches ; mounted on glass ; unmarked.

197. Oval Cameo Medallion in jasper ware ; white relievo on pale blue ground. 4¼ inches by 3¼ inches. Profile portrait of Sir W. Herschel (born 1738, died 1822), with name stamped under portrait, and impressed mark on back,—

“ WEDGWOOD.”

The planets Saturn and Uranus are represented on this medallion. Herschel's discovery of Uranus was made on March 13, 1781. The death of Mr. Bentley, Wedgwood's partner, had occurred on Nov. 26, 1780 ; hence the name of Wedgwood alone is stamped upon this medallion. Herschel's portrait is not included in the “ List of Philosophers and Naturalists,” in the last edition of Wedgwood's Catalogue (1787).

198. Circular Cameo Medallion in jasper ware, white on deep blue ground. Diameter, 2⅜ inches, Portrait of Charles James Fox (born 1749, died 1806) ; surrounded by border of fleur-de-lis ; impressed mark on back,—

“ WEDGWOOD.”

and the letter J.

199. Circular Cameo Medallion in jasper ware, white on pale blue ground. Diameter, 2 inches. Subject, aërial figure of Aurora scattering flowers ; impressed mark on back,—

“ WEDGWOOD.”

200. Circular Cameo Medal-

lion in jasper ware; white on dark blue ground. Diameter, 1⅜ inches. Subject, Hercules strangling the Nemean Lion; unmarked.

201. Circular Cameo Medallion in jasper ware; white on dark blue ground. Diameter, 1⅜ inches. Subject, Hercules carrying the Cretan Bull; unmarked.

202. Circular Cameo Medallion in jasper ware; white on dark blue ground. Diameter, 1⅜ inches. Subject, Neptune and Minerva disputing about the name of Athens; unmarked.

203. Circular Cameo Medallion in jasper ware; white on dark blue ground. Diameter, 2¼ inches. Subject, a sacrifice to Peace; impressed mark on back,—

"WEDGWOOD."

204. Circular Cameo Medallion in jasper ware; white on dark blue ground. Diameter, 1⅜ inches. Subject, a sacrifice, after the antique; unmarked.

205. Oval Cameo Medallion in jasper ware; white on dark blue ground. 2⅞ inches by 1½ inches. Subject, Mucius Scaevola burning his right hand before King Porsenna; impressed mark on back,—

"WEDGWOOD."

206. Oval Cameo Medallion in jasper ware; white on dark blue ground, with relief on both sides, 1½ inches by 1¼ inches. Classic figures sacrificing, after the antique; unmarked.

207. Oval Cameo Medallion in jasper ware; white on dark blue ground. 2½ inches by 1⅝ inches. Subject, aërial figure of Psyche, surrounded by white border; impressed mark on back,—

"WEDGWOOD."

208. Cameo Medallion in jasper ware; white on dark blue ground; shape, pointed oval for mounting as a buckle. 2¼ inches by 1⅛ inches Subject, figure of Ariadne with dolphin; impressed mark on back

"WEDGWOOD,"

and letter G.

209. Cameo Medallion in jasper ware, white on dark blue ground; shape, pointed oval for mounting as a buckle. 2¼ inches by 1⅛ inches. Subject, figure of Ceres with cornucopia; impressed mark on back,—

"WEDGWOOD,"

and an indistinct letter.

210. Relievo Plaque in jasper ware; shape, octagonal oblong. 2¾ inches by ⅛ inches. Subject, Aurora in her chariot, attended by two flying cupids, meeting the Dawn; modelled by Flaxman; white on lavender ground, surrounded by border in white on blue ground; impressed mark on back,—

"WEDGWOOD."

211. Relievo Plaque in jasper ware; shape, octagonal oblong. 2½ inches by ⅝ inch. Classical subject in white on sage-green ground, surrounded by a simple floral border in white on blue ground, impressed mark on back,—

"WEDGWOOD,"

and the letter H.

212. Relievo Plaque in jasper ware; shape, octagonal oblong. 2½ inches by ⅝ inches. Classical figures in white on sage-green ground, with white border, edged in dark brown; cracked; impressed mark on back,—

"WEDGWOOD,"

and letter H.

G. 213. Relievo Plaque in jasper ware, shape, octagonal oblong; 3¾ inches by 1½ inch. Subject, cupids at play; in white on sage-green ground; impressed mark on back,—

"WEDGWOOD."

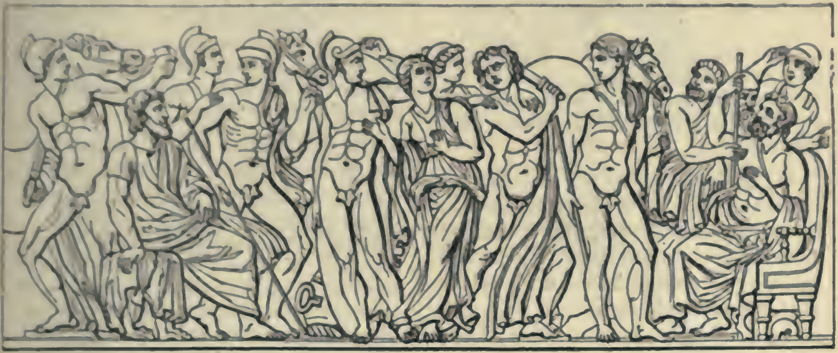
G. 214. Large Relievo Plaque in jasper ware, rectangular shape; 15 inches by 6 inches. Subject, the sacrifice of Iphigenia (fig. 124);

white cameo-work on sage-green ground; impressed mark on back,—

"WEDGWOOD."

The modelling of this bas-relief is attributed to the Italian artist Pacetti. It is copied from the sculpture on the sarcophagus in which the Barberini vase was discovered, and which is preserved in the Museum of the Capitol at Rome. For notice of the vase, *see* p, 135.

Fig. 124.



Wedgwood Porcelain.

[Wall Case X.]

Although it is believed that the manufacture of porcelain was not attempted by Josiah Wedgwood, it is known that it was subsequently undertaken at Etruria by his nephew Thomas Byerley. The production of porcelain at these works commenced probably about the year 1808, but was carried on for only a short period.

G. 356. Cup and Saucer in porcelain, ornamented with birds and flowers outlined in transfer-printing and enamelled in colours; gilt diamond border; marked in red,—

"WEDGWOOD."

All the succeeding pieces of Wedgwood porcelain are marked in the same way.

G. 357. Mug, in similar style to last; marked in red.

G. 358. Mug, painted with view of Pont Aberglasslyn in North Wales; gilt edge: marked in red.

G. 359. Saucer, in similar style to last, with view in Enniskillen; marked in red.

G. 360. Plate, with fluted border and gilt edge, painted in similar style to last with view of Sathram Down, Devon; marked in red.

G. 361. Plate, with fluted border and gilt edge, painted with poppy, convolvulus, and other flowers; marked in red.

G. 362. Cup and Saucer, ornamented with vine leaves in low relief; gilt edge; marked in red.

Old Staffordshire Ware, exclusive of Wedgwood and Spode Wares.

[Wall Cases VI. to X.; lower shelves.]

G. 363. OCTAGONAL PLATE. Diameter, 8 inches. Delft ware, painted in blue with river scene; marked in blue under the glaze

“*J. T., March* y^{e} *1, 17*$\frac{39}{40}$”

These initials are those of Josiah Twyford, of Shelton, who is mentioned by Dr. Shaw as the first potter who introduced the use of pipe-clay into the Staffordshire potteries.

G. 364. OBELISK. Height, 16 inches. Granite ware, with surface of variegated fragments sprinkled in brown paste and glazed; mounted on square blue pedestal with white oval medallions in relief, and gilt leaf borders; impressed mark, “Ra. Wood, Burslem,” and number 83.

As the apex of the obelisk is broken, it was probably surmounted by an ornament or by a nozzle for holding a candle. A set of three similar pieces belonging to Dr. Diamond, and lost in the fire at the Alexandra Palace, were each surmounted by a globe.

G. 365. TOBACCO-JAR and COVER, in old Staffordshire ware, 7 inches high, 5 inches in diameter; the surface roughened by small fragments of variegated glazed ware; the cover surmounted by an acorn.

The character of the surface of this piece may be compared with that of the last piece. The colours of the fragments employed for ornamentation in the two cases are identical, being confined to white, a pale blue, orange, and a deep chocolate; but in this specimen the fragments project from the surface with jagged edges, which are merely smoothed by a general coating of glaze, whilst in the obelisk the entire surface has been rendered smooth, and resembles the polished face of a porphyritic rock, the fragments representing embedded crystals.

G. 366. STAND for cut flowers, with flat back and bow front, in coarse white glazed earthenware, having the surface roughened by fragments of potsherd sprinkled over the front, and enclosed between two blue bands.

Presented by H. Willett, Esq., F.G.S., 1873.

The fragments of ware sprinkled over the surface of this piece are coarser in texture and duller in colour than those on the preceding specimen.

G. 367. BUST of WASHINGTON, 10 inches high, in plain cream-coloured ware, with impressed mark, “Ra. Wood, Burslem.”

George Washington was born in 1732 and died in 1799. Ralph Wood, whose name is stamped on this piece, and also on G. 364, was the father of Aaron Wood, who was apprenticed to Dr. T. Wedgwood, and he was, consequently, the grandfather of Enoch Wood, whose name appears on the following specimens.

G. 368. OVAL DISH. Diameters, 9 inches and 7½ inches. Cream-coloured ware, with embossed basket pattern, and pierced border, edged in blue; impressed mark,—“E. WOOD.”

G. 369. OPEN-WORK BASKET, in similar style to last; unmarked.

G. 370. SAUCER for FLOWER-POT. Diameter, 5 inches. White glazed earthenware, ornamented with scrolled riband in relief on blue ground; impressed mark,—“ENOCH WOOD & SONS.”

G. 371. FLOWER-POT, in similar style to last. Height, 4 inches; diameter, 4¾ inches. Ornamented with frieze of classic figures, including Hercules and the Nemean Lion, in white relief on blue ground; impressed mark,—“WOOD & CALDWELL.”

G. 372. BUST of ALEXANDER, Emperor of RUSSIA, in military costume, painted in colours. Height, 12 inches. Inscribed on back, "Alexander, Æt. 35. Moscow burnt, Europe preserved, 1812." Impressed mark,—"WOOD & CALDWELL, BURSLEM, *Staffordshire*."

G. 373. **Statuette of Falstaff**, painted in colours. Height, 9 inches; impressed mark,—"WOOD & CALDWELL."

G. 374. **Statuette of Dr. Franklin**, painted in colours. Height, 13¼ inches. Mounted on square marbled pedestal with yellow oval medallions in relief; unmarked.

Benjamin Franklin was born in 1706, and died in 1790. This may be a Salopian figure.

G. 375. **Statuette of Minerva**, with gorgon-headed shield and owl. Height, 13 inches. Plain cream-coloured ware; unmarked.

Compare the character of this piece with that of Ralph Wood's bust of Washington, G. 367.

G. 376 }
G. 376*a*. } **Pair of Figures**, 11 inches high; representing the prophet Elijah and the widow of Sarepta; painted in colours; unmarked.

G. 377. **Bust of Madonna** (fig. 125), probably from an Italian model. Height, 17 inches. Painted in proper colours; unmarked.

Compare bust of "Sadness" in Wedgwood ware, G. 260, p. 128.

G. 378. **Bust of Shakespeare** (fig. 126). Height, 9½ inches. Coloured in similar style to last; unmarked.

Coll Enoch Wood.

G. 379. **Bust of Shakespeare**, in black "Egyptian ware," similar to the last piece in form, differing in the character of the ware; unmarked.

Coll. Enoch Wood.

G. 380. **Bust of Shakespeare**, 17 inches high, in white glazed earthenware, painted in proper colours; impressed mark "Bott & Co."

Fig 125.

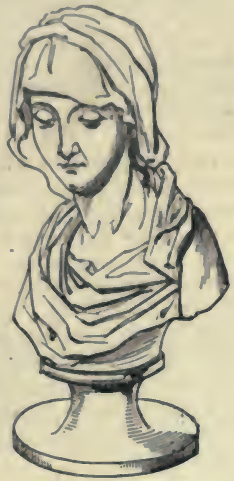
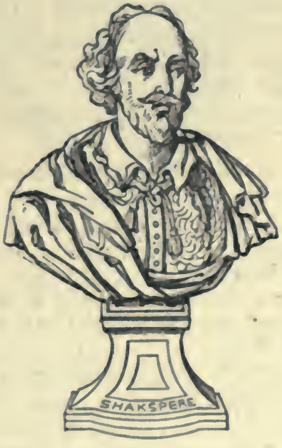


Fig. 126.



G. 381. **Flower Vase**, with bow front, ornamented in purple bat-printing with views of English mansions in three compartments; border and pilasters painted red, impressed mark,—"Bott & Co."

G. 382. **Jug.** Height, 8 inches. White earthenware, with rustic figures modelled in high relief, and coarsely painted; inscribed "D. VOYEZ," and obscured date (1788?).

This jug is figured in Miss Meteyard's *Life of Wedgwood*, vol. ii., p. 89. Voyez was a clever French modeller, at one time in the employ of Josiah Wedgwood, and afterwards with Palmer and Neale & Co. He imitated many of Wedgwood's characteristic productions.

G. 383. Spill Vase, 4 inches high, in buff-coloured unglazed ware, ornamented with relievo figures in pale blue in Wedgwood's style; impressed mark,—"EASTWOOD."

Eastwood is a locality in the Staffordshire potteries, but does not appear to have been a personal name there.

G. 384. Vase, 9 inches high, in buff-coloured unglazed ware, ornamented with female figures in relief; oviform body, with two rising handles in lilac ware; impressed mark,—"EASTWOOD."

G. 385. Pot-pourri Vase and Cover, 9 inches high, in red unglazed ware, ornamented in relief with female figures and floral ornaments in black; mounted on a circular pedestal of black ware, with embossed figures; impressed mark,—"EASTWOOD."

G. 386. Large Tea-pot and Cover, in black "Egyptian ware," with fluted body and raised classic figures; impressed mark,—"MOSELEY."

The Churchyard Works at Burslem, were at one time occupied by a potter of this name.

G. 387. Coffee-pot and Cover, in black Egyptian ware. Height, 9¼ inches. Ribbed pattern, with a frieze of figures representing Liberty, &c.; unmarked.

Presented by Mrs. Watson.

G. 388. Sucrier, in black "Egyptian ware," with fluted body, and frieze of classic figures in relief; impressed mark,—"Birch."

G. 389. Cream-ewer, in black "Egyptian ware," ornamented with engine-turned pattern; impressed mark,—"KEELING, TOFT & CO."

Both Keeling and Toft are well known names in connexion with the Staffordshire potteries.

G. 389*a*. Plate in blue glazed ware, with pierced border and gilt edge; the centre ornamented with view in Mesopotamia printed in black; unmarked.

The Mesopotamia service was produced in 1828, by James Keeling, of Hanley; the views being taken from Mr. J. Silk Buckingham's "Travels in Mesopotamia," published in 1827.

G. 390. Coffee-pot and Cover, in black "Egyptian" ware. Height, 10 inches. Ribbed pattern; floriated handles and spout; cover surmounted by seated female figure; impressed mark,—"E. Mayer."

Elijah Mayer was a contemporary of Wedgwood, and one of his most successful imitators.

G. 391. Tea-pot and Cover in buff-coloured ware, with embossed wicker pattern; cover surmounted by seated female figure; impressed mark,—"E. Mayer."

G. 392. Basin. Height, 3¼ inches; diameter, 6¾ inches. Buff-coloured ware edged in blue, and ornamented in relief with cupids, satyrs, and other classic figures; impressed mark,—"E. Mayer."

G. 392*a*. Basin. Height, 8½ inches; diameter 5¾ inches. Black "Egyptian ware," ornamented with ribbed pattern, and six groups of figures in relief; impressed mark,—"E. Mayer."

G. 393. Vase and Cover in buff-coloured ware, painted. Height, 12¼ inches. Oviform body, with festoons of green drapery pendent from oval medallions and from two lions' masks forming handles; openwork cover surmounted by pineapple; impressed mark,—"E. Mayer."

G. 394. Plate, 10½ inches in diameter; white glazed earthenware, ornamented with border, and centre of scroll-pattern printed in blue of two tints; impressed mark,—"MAYER & ELLIOT."

G. 395. CREAM JUG in marone ware. Height, 4¼ inches. Ribbed body, with leaves in relief on handle and spout; unmarked. Manufactured by J. Mayer, of Hanley.

Presented by W. H. Goss, Esq.

G. 396. TEA-POT and COVER, in fine cream-coloured stone-ware resembling parian; body ornamented in relief with figures of Cupid and female, and a girl reading; cover surmounted by figure of mother and infant; unmarked.

Presented by W. H. Goss, Esq.

According to information supplied by the donor, this piece was manufactured by J. Mayer, fifty years before the discovery of parian ware.

G. 397. JARDINIÈRE in jasper ware. Height, 6 inches; diameter, 3¼ inches. Square vase, with perforated cover; pale blue ground, with cameo figures in white representing the proclamation of Liberty, Commerce, and Union; impressed mark,—"NEALE & CO."

Neale was a contemporary of Wedgwood, and in conjunction with Palmer and other potters at Hanley, successfully imitated many of Wedgwood's works.

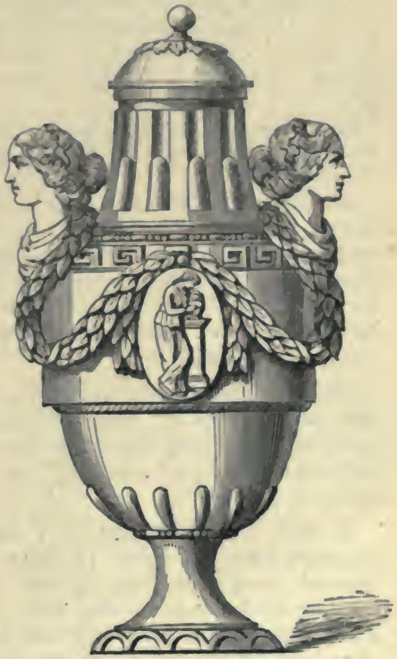
G. 398. } PAIR of STATUETTES;
G. 399. } male and female classic figures in white jasper ware, mounted on pedestals of lilac-coloured jasper; impressed mark,—"NEALE & CO."

G. 400. SPILL VASE. Height, 5 inches; diameter, 4¼ inches. Octagonal vase in green-glazed ware, with floral festoons in relief, bearing traces of gilding; impressed mark,—"NEALE & CO."

G. 401. LARGE URN and COVER in Neale's ware (fig. 127). Height, 18 inches; greatest diameter, 9 inches. Oviform vase, in green-glazed ware, with gilt oval medallions ornamented in relief with figure of weeping female; gilt funeral wreaths are suspended from the medallions and entwined around two gilt busts forming handles; unmarked.

Although this piece is not marked, its style so closely resembles that of the preceding specimen which is marked as to leave no room for doubt as to its maker.

Fig. 127.



G. 402. LARGE OVAL PLAQUE in black Egyptian ware, with profile portrait in relief, supposed to be that of William Penn; mounted in black and gold frame; impressed mark,—"NEALE & CO."

G. 403. OVAL DISH in cream-coloured ware, with pierced border and embossed wicker pattern; impressed mark,—"NEALE & CO."

G. 403*a*. CUP and SAUCER, in blue jasper ware, ornamented with white cameo figures, chiefly animals and birds; impressed mark,—"NEALE & CO."

G. 404. **SMALL VASE**, on pedestal, in jasper ware. Height, 5¼ inches; diameter, 3¼ inches. Dark blue ground, with white cameo figures; amorini on the pedestal, and floral festoons pendent from rams' heads on the vase; impressed mark,—"STEEL."

G. 405. **BASIN** in cane-coloured ware. Height, 3½ inches; diameter, 8¼ inches. Embossed with female figures; impressed mark,—"TURNER."

John Turner, of Lane End, was a contemporary of Wedgwood, and a very successful imitator of some of his productions.

G. 406. **OVAL SUGAR-BASIN** and **COVER** in cane-coloured ware, embossed with figures of nymphs attended by cupids, and representing Air and Water; cover surmounted by seated female figure; impressed mark,—"TURNER."

G. 407. **OVAL OPEN-WORK BASKET** and **STAND** in cane-coloured ware, embossed with wicker pattern; impressed mark,—"TURNER," and figure 5.

G. 408. **DOUBLE-HANDLED VASE** in jasper ware. Height, 7½ inches. Ground blue, with white figures in relief, representing on one side a female weeping at a funeral monument, and on the other side mother and children; meander pattern round the shoulder; mounted on octagonal base of polished black ware; impressed mark,—"TURNER." and figure 4.

G. 408*a*. **JUG**, 5 inches high, in black ware glazed inside; ornamented in relief with border of vine running round the neck, and with figure of nymph in clam-shell drawn by dolphins; impressed mark,—"TURNER."

G. 409. **HALF-GALLON JUG** in cream-coloured stone-ware, with neck and handle coated with chocolate coloured glaze; ornamented with embossed figures, representing Britannia succouring the Slave; impressed mark,—"TURNER."

(On shelf below.)

G. 409*a*. **DISH**, in jasper ware; circular shape, diameter, 8 inches; pale blue ground, with raised ornament in white; in the centre Falstaff in the buck-basket, surrounded by a broad border of acanthus leaves; impressed mark,—"TURNER."

G. 410. **DISH** and **COVER** in form of a duck trussed; cream-coloured stone-ware with relief ornament, glazed inside; impressed mark,—"TURNER."

G. 411. **OVAL DISH** in common white ware, with pierced border and band of embossed wicker-work; centre printed in blue with willow pattern; impressed mark,—"TURNER."

G. 411*a*. **LARGE STAND** for flowers, 13½ inches long and 4½ inches high; cream-coloured stone-ware, with black glazed ornaments of acanthus leaves and beaded border; impressed mark,—"TURNER."

(On top shelf of Wall Case IX.)

G. 412. **PLATE** in coarse cream-coloured ware, stamped "TURNER;" coarsely painted over the glaze, and fired; subject, a female confessing to a priest whilst held captive by Satan; inscribed *Den Biegt*.

The style in which this painting of the Confessional is executed, and the Dutch inscription, would seem to indicate that the piece was decorated in Holland, although it may have been made in the Staffordshire potteries. It is believed that Turner had a depôt at Delft. Such plates are referred by some authorities to Turner of Caughley.

G. 412*a*. **CUP** and **SAUCER**, in pale blue jasper ware, with classic figure—groups in white cameo; impressed mark,—"TURNER & CO."

G. 412*b*. **PORCELAIN BOWL**, with blebby glaze; ornamented with oriental foliage painted and gilt, in panels on a dark blue smeary ground;

mark printed in red "Turner's Patent," and No. 1.

A patent was granted to William and John Turner in 1800, for a new method of manufacturing porcelain and earthenware by the introduction of a material known in Staffordshire as "Tabberner's Mine rock," "Little Mine rock," and "New Rock" (Specifications of Patents, No. 2367, January 9, 1800). In 1839 a patent was taken out by Wilton George Turner and Herbert Minton, for an improved porcelain. (Spec. of Pat. No. 8124, June 22, 1839.)

G. 413. Salt-cellar, in form of small vase, mounted on four claws. Height, 3 inches; diameter, 2¾ inches. Drab-coloured stone-ware, with white vine leaves in relief; impressed mark,—"Ridgway."

G. 414. Vase and Cover in porcelain, painted and gilt. Height, 8 inches. Ornamented with frieze of roses, &c. painted on gold ground; two handles in form of swan's necks, gilt; impressed mark,—"Ridgway & Sons."

G. 414*a*. Pot-pourri Vase, in white glazed earthenware, ornamented with frieze of amorini in relief on lavender ground; handles in form of eagles; stamped "Ridgway & Sons."

G. 414*b*. Spill-pot, 5¾ inches high; white glazed earthenware, with flowers painted in an octagonal panel on drab ground; stamped "W. RIDGWAY, SON & CO. HANLEY," and marked in red 1197.

C. 415. Coffee-Pot and Cover in New Hall china. Height, 9 inches. Coarsely painted with flowers in red and blue; marked in red printing over the glaze—

"New Hall,"

surrounded by a double circle; and number 1084.

The New Hall Works at Shelton, where the first porcelain was made in Staffordshire, were established by a company of potters who, in 1777, purchased Cookworthy's patent which had been extended to Champion. (*See* p. 200.) The New Hall Works were closed in 1825.

G. 416. Basin in New Hall china. Height, 3 inches; diameter, 6¼ inches. White porcelain painted and gilt with conventional flowers; marked in red, "*New Hall*," and number 1153.

G. 417. Sugar-basin and Cover in pale blue glazed earthenware, with simple white ornaments in relief; impressed mark,—"HARDING."

G. 418. Cream-jug in brown glazed "Rockingham" ware; impressed mark,—"HARDING."

Presented by Mrs. Watson.

G. 419. }
G. 419*a*. } Pair of Small Oval Dishes in cream-coloured ware, artistically painted with knights and armed figures, by George Eyre, whose cypher is painted in brown; impressed mark,—"HACKWOOD."

G. 420. Toy Plate. Diameter, 3½ inches. White earthenware, with bird and nest in blue printing; impressed mark,—"C. & H., LATE HACKWOOD." The initals are those of Messrs. Cookson & Harding.

G. 421. }
G. 422. } Pair of Figures representing Gardener and Fishwoman, coarsely painted. Height, 7 inches; impressed mark, in scroll,—"WALTON."

G. 423. Figure of Lion couchant beneath tree, in similar style. Height, 5 inches; impressed mark, in scroll,—"WALTON."

G. 424. Figure of a Shepherdess, painted in colours. Height, 5 inches; impressed mark,—"SALT."

G. 424*a*. Figure of a man and woman, in costume of the period of the Regency; coloured.

Presented by Henry Willett, Esq., F.G.S., 1874.

G. 424*b*. Figure of a dog baiting a bull, in old English pottery; coloured.

Presented by Henry Willett, Esq., F.G.S., 1874.

G. 425. **Basin** in jasper ware. Height, 3½ inches; diameter, 7½ inches. White ground, with cameo figures in blue representing female weeping at a tomb, another female crowning bust with garland, mother with children, &c.; impressed mark,—"T. & J. HOLLINS."

Presented by C. H. Carruthers, Esq.

G. 426. **Basin.** Height, 5 inches; diameter, 9 inches. Sage-green ware, fluted and embossed with flowers; decorated with dark blue bands painted in white; impressed mark,—"S. HOLLINS."

G. 427. **Jug** in marone ware. Height, 6½ inches. Ornamented with embossed hunting scene; rim mounted in silver; impressed mark, —"S. HOLLINS."

G. 428. **Flower-pot** and **Stand**, 4 inches high, in white glazed earthenware ornamented with transfer printing in red over the glaze; subject, children at play swimming a boat; mark printed in red, "Shorthose & Co."

G. 428*a*. **Cup** and **Saucer**, in porcelain, ornamented with flowers printed in blue under the glaze; marked also in blue under glaze, "SHORTHOSE &" (*sic*), with two crescents.

G. 429. **Small Basket**, or card-tray, in cream-coloured ware, painted with simple border in brown and green; impressed mark,—"SHORTHOSE & CO.," and figure 6.

G. 430. **Oval Compotier** and **Stand** in cream-coloured ware; open-work sides; impressed mark, "Shorthose & Co."

G. 431. **Oval Dish** in cream-coloured ware, embossed with wicker pattern; pierced border; impressed mark,—"SHORTHOSE & HEATH."

G. 431*a*. **Candlestick**, 7 inches high, in white earthenware; fluted shaft entwined with wreaths touched with blue; impressed mark,—"*Heath.*"

G. 432. **Octagonal Tea-pot** in white glazed earthenware, with pressed leaf border and gilt sprigs of flowers on the sides; cover surmounted by swan; impressed mark, —"HARLEY."

G. 433. **Pot-pourri Vase** and **Cover**, 6 inches high, in white stone-ware, ornamented with blue cameo figures and border of vine; impressed mark,—"Pratt."

G. 434. **Inkstand** in black ware, ornamented with engine work; impressed mark, "MIST, LONDON," and figure 5.

G. 435. **Spill Vase** in porcelain, painted with landscape in panel on deep blue ground enriched with gilt scroll-work; marked, in red "M. & N. 264." (Mayer and Newbold.)

G. 436. **Salt-cellar**; a small two-handled square dish in common white ware, with Chinese willow pattern printed in blue; impressed mark,—"PHILLIPS, LONGPORT."

G. 437. **Two-handled Cup**, **Cover** and **Saucer**, in porcelain, painted with landscape, and gilt with oak pattern; marked in red, "*Longport.*"

G. 438. **Square Compotier** in porcelain, with gilt scroll border; centre finely painted with group of fruit; marked in red, "Davenport, LONGPORT."

Compare painting on this piece with Steele's fruit on the Derby porcelain, J. 62. The works at Longport were established by Mr. John Davenport in 1793, and are still carried on by his descendants.

G. 439. **Coffee-cup** and **Saucer** in porcelain, with gilt border of flowers in alternate compartments of blue and white; marked in red with an anchor surmounted by motto, "DAVENPORT."

G. 440. MATCH-POT in cream-coloured ware, painted with floriated pattern in red and brown; handles in form of dolphins' masks; impressed mark,—"Davenport" above an anchor.

G. 441. OCTAGONAL BASKET and STAND, with open-work sides; printed in blue, with landscape in Chinese style; impressed mark,—"Davenport" above the anchor.

G. 442. PLATE, in white earthenware, printed with dragons and fret border in blue under the glaze; the ground pencilled with scale pattern in vermilion over the glaze: impressed mark,—"Davenport," in semi-circle over an anchor.

G. 442*a*. PLATE, in porcelain, painted with three groups of flowers; pressed border, blue edge, and gilt rim; mark printed in purple,—"DAVENPORT, LONGPORT, STAFFORDSHIRE."

G. 443. TEA-POT and COVER, with silver-mounted spout; glazed fawn-coloured body ornamented with gilt lines, and painted with landscapes in brown monochrome; impressed mark, an anchor.

G. 444. DISH, in white glazed earthenware, printed in blue with English landscape; pierced border; impressed mark,—"F. MEIR."

G. 445. } TWO PLATES, with
G. 445*a*. } scroll borders in green and gold; centres painted with groups of fruit in similar style to that on No. G. 438; marked in red, "*Crystal Ware.*"

G. 446. TOBY FILL-POT ALE-JUG, in white glazed earthenware, painted in colours; unmarked.

Presented by Henry Willett, Esq., F.G.S., 1874.

G. 447. LARGE JUG. Height, 8 inches. Blue jasper ground with white raised figures representing the four seasons in Wedgwood's style; floral border round the neck; rim mounted in silver; impressed mark,—"ADAMS."

William Adams was one of Wedgwood's pupils, and afterwards a manufacturer on his own account. He produced jasper ware which closely resembled Wedgwood's.

G. 448. DESSERT PLATE, in green glazed ware, with flowers in low relief; impressed mark, "J. ADAMS."

G, 449. FISH PLATE, in common white ware, with a fish printed in brown; impressed mark,—"CLOSE "& CO., late Wm. Adams and Sons, "Stoke-upon-Trent."

G. 450. WINE-CASK, mounted on stand, in cream-coloured ware. Cask painted dark brown and glazed, with gilt hoops; supported by four figures representing boys holding grapes and kneeling at the corners of a square table, which rests on four pedestals with embossed trophies. Barrel stamped "M. 22;" Stand stamped, "M. 15."

G. 451. QUART JUG, in stoneware; drab-coloured ground with white raised figures representing cupids at play; floral band round neck; impressed mark in two places,—"WILSON."

G. 451*a*. BASKET and COVER, in brownish drab stoneware, ornamented with band of white flowers in low relief on the body and acanthus leaves on the cover; handle of wicker work; impressed mark,—"WILSON" and figure 4.

G. 452. DOUBLE-HANDLED CUP and SAUCER in cream ware, painted chocolate colour and ornamented with broad gilt band of Greek meander pattern; impressed mark,—"WILSON."

G. 452*a*. **Heart-shaped Dish**, in cream-coloured ware, with egg-and-tongue border painted in black on red ground; stamped G, surmounted by a crown, with "WILSON" impressed and painted over in blue.

It has been suggested that what appears to be a G on some of Wilson's ware may really be a C, and refer to the "Chalk body" for which he was celebrated.

G. 452*b*. **Oval Dish**, in cream-coloured ware, edged in blue and painted with sprigs of flowers in blue, red, and green; stamped G, surmounted by a crown, with impressed diamond.

G. 452*c*. **Jardinière**, 7½ inches high, in form of a four-sided pedestal. White glazed ware, with snake handles and pendant wreaths tinted green; marked G, surmounted by a crown, and figure 4 scratched in paste.

G. 453. **Dish**, shell pattern, in common ware, printed in blue with combination of classic ruins and English landscape; impressed mark,—"LAKIN."

G. 454. **Octagonal Cistern** for holding water for a dog, in plain cream-coloured ware; impressed mark,—"R. POOLE."

G. 454*a*. **Dish**, in cream-coloured ware; oval, with shaped edges and pressed border; the centre painted with exotic bird in brillant colours; impressed mark,—"LAKIN & POOLE."

G. 455. **Dish**, mounted on foot, with stand, in common white ware printed in blue with broad floral border and Chinese subject, in centre; impressed mark,—"ROGERS."

G. 455*a*. **Sauce-boat, Stand** and **Cover**, in white earthenware, printed with flowers and fruit in brown; impressed mark, "ROGERS."

G. 456. **Plate**, printed in blue with oriental scene; impressed mark,—"ROGERS" and *.

G. 457. **Plate**, edged in green and orange, and painted with pink chrysanthemum and forget-me-not; impressed mark,—"ROGERS."

G. 458. **Plate**, with embossed border edged in orange; centre with view of Claremont House printed in black and coarsely coloured; inscribed, "The seat of Her late Royal Highness Princess Charlotte and Prince Leepold;" impressed mark,—"A. STEVENSON, WARRANTED STAFFORDSHIRE," in circle surrounding a crown.

G. 459. **Plate** in similar style, with a steamboat printed in brown and coarsely coloured; inscribed, "On her passage from Belfast to Liverpool at the rate of 10 miles an hour;" impressed mark as on last piece.

G. 459*a*. **Cup** and **Saucer**, in coarse earthenware ornamented with Chinese scene in red transfer printing, coloured by hand; impressed mark as on last piece.

G. 459*b*. **Cup** and **Saucer**, similar to last piece; impressed mark,—"STEVENSON," with ship and letter C.

G. 460. **Oval Dish**, in cream-coloured ware, with pierced border; impressed mark,—"STEVENSON," with ship beneath.

G. 460*a*. **Stand** for **Vase**, in form of a four-sided pedestal; white glazed ware ornamented in relief, on pale blue ground; on one side Ganymede watering an eagle, on another side a butterfly and serpent, on third side a watch dog and child, and on the fourth side a milkmaid and cow; impressed mark,—"W. STEVENSON, HANLEY, MAY 2, 1828."

G. 461. **Square Dish** in deep cream-coloured ware, with embossed border of flowers; impressed mark, a crown with "CLEWS, WARRANTED STAFFORDSHIRE."

G. 462. VASE, 5½ inches high, with frieze of classic figures, printed in blue under the glaze and touched with vermilion, marked in blue "BATTY & CO."

G. 462*a*. CUP and SAUCER, in earthenware, edged in gold, and ornamented with oriental flowers and birds, outlined in transfer-printing and coloured by hand; the saucer with mark printed under the glaze "T. GREEN, FENTON POTTERIES" in garter surmounted by crown and ornamented with laurels, and having the name of the pattern **Indian Bird**, printed in the centre.

Presented by Dr. Diamond, F.S.A., 1875.

G. 463. DOUBLE-HANDLED CUP, COVER, and STAND, gilt with Greek meander ornament and oak leaves; impressed mark,—"M. MASON."

In connexion with Mason's china it may be interesting to quote the following advertisement from the *Morning Herald* of Monday, October 15, 1804:—

MASON'S CHINA.

It has hitherto been the opinion, not only of the Public, but also of the Manufacturers of this Country that the earths of these Kingdoms are unequal to those of Foreign Nations for the fabrication of china. Miles Mason, late of Fenchurch Street, London, having been a principal purchaser of Indian Porcelain, till the prohibition of that article by heavy duties has established a Manufactory at Lane Delph, near Newcastle-under-Line, upon the principle of the Indian and Sève (*sic*) China. The former is now sold at the principal Shops only in the City of London, and in the Country as British Nankin. His article is warranted from the Manufactory to possess superior qualities to Indian Nankin China, being more beautiful as well as more durable, and not so liable to snip at the edges, more difficult to break, and refusable or unitable by heat, if broken. Being aware that to combat strong prejudices with success, something superior must be produced: he, therefore, through the medium of his Wholesale Friends, proposes to renew or match the impaired or broken services of the Nobility and Gentry, when by a fair trial or conjunction with foreign china, he doubts not that these fears will be removed, and, in a short period, the Manufactories of Porcelain, by the patronage of the Nobility of this country, will rival, if not excel, those of foreign Nations.

N.B. The articles are stamped on the bottom of the large pieces, to prevent imposition.

G. 463*a*. CAKE PLATE, in porcelain, painted with simple sprigs of flowers; stamped "M. MASON," and marked in red "No. 3."

G. 463*b*. CUP and SAUCER, in precisely the same style as last piece; unmarked.

G. 463*c*. PLATE, in common ware, with willow-pattern printed in blue; stamped "M. MASON."

G. 464. ASPARAGUS DISH, in common white ware, printed in blue with willow pattern; stamped "MASON'S CAMBRIAN ARGIL."

G. 465. LARGE SOUP TUREEN, COVER, and STAND; quadrangular form, ornamented with green feather edge, and printed in red with border of flowers and view of an English castellated mansion in the centre; marked in red, "MASON'S PATENT IRONSTONE CHINA."

Mason's improvement, for which a patent was granted in 1813, consisted in using the scoria or slag of ironstone pounded and ground in water, in certain proportions, with flint, Cornwall stone and clay, and blue oxide of cobalt. (Specifications of Patents, No. 3724, July 23, 1813.)

G. 465*a*. PLATE, with fluted border, ornamented with flowers outlined in transfer-printing; and painted and gilt by hand; impressed mark, MASON'S PATENT IRONSTONE CHINA.

G. 465*b*. VASE and COVER, 14½ inches high, in Mason's ironstone china, ornamented with bold flowers outlined in black-printing and coloured by hand; unmarked, except with a blue *, and red figures 8065.

G. 466. **Octagonal Spill Vase** in ironstone china. Height, 7¼ ins. Mounted on three claws resting on a circular base; edged in gold, and ornamented in oriental style, outlined in black printing and afterwards coloured; unmarked.

G. 466*a*. **Basket** and **Stand** in white ware, printed in blue with English landscape, marked in blue in a belt, "RILEY's Semi-china."

G. 467. **Basket** and **Stand** in white ware, printed in Chinese style in blue; open-work border; marked in blue, "Semi-china."

G. 467*a*. **Dish**, circular, with grape-handle, printed in blue with a view of London from the Thames.

G. 468. **Circular Dish**, printed in flowers in colours, and edged in blue; inscribed, "Mohr and Smith, Patentees."

G. 468*a*. **Vase**, in white glazed ware, printed in blue with Swiss cottage; marked in blue under the glaze "Ironstone, Tillenberg," with phœnix, and "J. CLEMENTSON."

Presented by Captain Wundt.

G. 468*b*. **Pie-dish**, in stone ware, with raised band of vine leaves in brown; stamped "hunt" (*sic*).

Presented by Captain Wundt.

G. 468*c*. **Dish**, oblong, with two handles; white glazed ware, with Chinese landscape printed in purple and touched with red by hand; marked in brown "DUCROZ & MILLIDGE," with motto in belt surrounding a crown and lion "ROYAL TERRA COTTA PORCELAIN."

Presented by Captain Terry.

G. 468*d*. **Cup** and **Saucer** in unglazed red ware, with engine-turned horizontal, wavy pattern; stamped with square Chinese mark, like that on some of Elers' ware, with an oval enclosing the letter W.

A coffee-pot of similar ware in Mr. Willett's collection is stamped MYATT. Mr. Myatt is known to have had a manufactory at Lane Delph in the early part of this century.

Spode's Ware.

[Wall Cases IX. and X.; lower shelves.]

The original Josiah Spode was apprenticed to Thomas Wheildon, of Fenton, in 1749. He conducted works at Stoke-upon-Trent, where he manufactured blue-printed, cream-coloured, and other wares. On his death in 1798, his son Josiah continued the business, and soon afterwards commenced the manufacture of porcelain, which he improved by introducing the use of bone-earth and of felspar. He died in 1827, and was succeeded in the business by his cousin, Josiah Spode, at whose death the works passed into the hands of Messrs. Copeland and Garrett. All the specimens of Spode's ware were (unless otherwise expressed) presented by Mr. Battam.

G. 469. **Inkstand**, in form of antique Roman lamp; drab-coloured stone-ware, ornamented with white raised flowers; impressed mark,—"Spode."

G. 470. **Small Basket**, with perforated cover; white stoneware, with drab-coloured exterior, ornamented in white relief with Roman scroll border and frieze of amorini; impressed mark,—"Spode."

G. 471. **Two-handled Vase**, of Roman shape. Height, 6¼ ins., diam. 4½ ins. Red terra-cotta with white raised figures representing females sacrificing; impressed mark,—"SPODE."

G. 472. **Vase** and **Cover**, coated with blue jasper-dip, with raised floral ornament in white; cover surmounted by a poppy-capsule; impressed mark,—"SPODE."

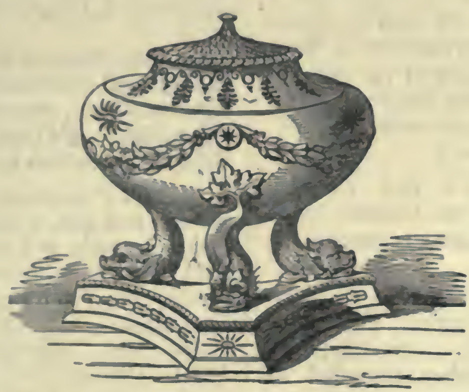
G. 473. **Small Basket** in yellow ware, ornamented in black relief with border of vine; cover pierced, unglazed; impressed mark, —"SPODE," and figure 18.

G. 474. **Spill Vase**, in marono glazed ware, with raised white leaves; impressed mark,—"SPODE."
Presented by W. H. Goss, Esq.

G. 475. **Mug**, in Spode's agate ware; unmarked.
Presented by W. H. Goss, Esq.

G. 476. **Vase** (fig. 128), with perforated cover, or pastile burner, mounted on tripod stand formed by three dolphins on triangular base; red body, with black ornaments in relief; impressed mark,—"SPODE."

Fig. 128.



G. 477. **Vase**, with double cover, one being perforated for cut flowers; red body, with Greek meander pattern, leaves, dolphin handles, &c., raised in black; impressed mark,—"SPODE."

G. 478. **Coffee-pot** and **Cover**, in red ware, with black Egyptian ornament in relief; cover surmounted by black crocodile; broken; impressed mark,—"SPODE."

G. 479. **Tea-pot** and **Cover**, in buff-coloured ware, with raised floral ornament in dull green; impressed mark,—"Spode."

G. 479*a*. **Tea-pot** and **Cover** in drab glazed ware, with pressed wicker-pattern, and a leaf border laid on in white running round the top; impressed mark,—"SPODE."

G. 480. **Coffee-pot** and **Cover**, in coarse ware, with mottled green and yellow glaze; unmarked.

G. 481. **Sugar-basin** and **Cover**, in white ware, blue glazed; ornamented with flowers in black under the glaze; unmarked.

G. 482. **Inkstand**, mounted on foot, with two bird's-head handles; plain glazed chocolate-coloured ware; impressed mark,—"SPODE."

G. 483. **Compotier** and **Stand** in cream-coloured ware, painted with border of flowers; pierced edge, embossed wicker pattern;

impressed mark,—"SPODE," and figures 49.

G. 484. SOUP-PLATE, painted and gilt with conventional flowers in oriental style; impressed mark,—"SPODE."

(*Not presented.*)

G. 485. PLATE, with plain centre, and border painted with small sprigs of flowers in oval compartments on lilac ground; impressed mark,—"Spode."

(*Not presented.*)

G. 486. PLATE, centre painted with armorial bearings; phœnix in proper colours on blue field, crest a crown; border with flowers painted and gilt in compartments on floriated ground; inscribed on back in purple, "Christophe, King of Hayte;" marked in purple, "SPODE."

(*Not presented.*)

G. 487. MUG and SAUCER, printed in blue in Chinese style with flying dragons; marked in blue, "SPODE."

(*Not presented.*)

G. 488. COFFEE CUP and SAUCER in Spode's porcelain, with gilt serpent handles, mounted on three claws, painted with flowers and richly bordered in blue and gold; unmarked.

G. 488*a*. CUP and SAUCER in porcelain, with flowers outlined in print and coloured by hand, on a deep blue ground enriched with powdered gold; marked in blue under glaze "SPODE," and in red, over the glaze 3066.

(*Not presented.*)

G. 489. PASTILE BURNER, mounted on four claws; painted with band of roses, and richly gilt; pierced cover surmounted by flame-ornament; marked in red,—"SPODE," and 311.

G. 490. DOUBLE-HANDLED Porcelain TAZZA, on square pedestal. Height, 5¼ ins., diam., 7¼ ins. Painted with flowers on *bleu-de-roi* ground with gilt scale-pattern; marked in red,—"SPODE," and 1166.

G. 490*a*. AMPHORA, 5¼ inches high; marone ground, with peacock and flowers in raised gold; marked in red,—"SPODE, 3993."

G. 491. SMALL PORCELAIN BOTTLE, painted in colours with Chinese figures, &c.; marked in red,—"**Spode, Felspar Porcelain,**" surrounded by a wreath.

G. 492. PORCELAIN DISH, richly painted and gilt, with border of the rose, shamrock, and thistle. Centre with star and motto, "ARGYLESHIRE, XCI.," surrounded by gilt inscriptions on blue ribands, "Peninsula, Pyrenees, Nivelle, Nive, Orthes, and Toulouse;" mark in purple, similar to that on last piece.

(*Not presented.*)

G. 492*a*. } Two PLATES, painted
G. 492*b*. } with flowers, and with a lake scale-pattern border similar to that common on reputed Lowestoft pieces; one of the plates stamped "SPODE'S NEW STONE."

Presented by Dr. Diamond, F.S.A., 1875.

WEST SIDE.

Modern Staffordshire Ware.

[Wall Cases XXXV. to XXXIX.]

G. 493. EARTHENWARE Dish, printed in black with scroll border, and coated with metallic lustre, now worn off. Impressed mark,—"COPELAND AND GARRETT."

G. 494. Earthenware Plate, with simple star border printed in blue. Marked in blue "COPELAND AND GARRATT," in circle surrounding a crown; "Saxon Blue" in motto, and B. 736, with ♂; also stamped with name of firm and "ROYAL OPAL."

G. 495. Earthenware Plate, printed in brown with Italian scene in centre, and border of flowers and birds in compartments. Marked in brown,—"COPELAND AND GARRETT, NEW BLANCHE," and stamped.

G. 496. Plate in plain white porcelain, marked in green, "COPELAND AND GARRETT," with crown and wreath.

G. 497. Porcelain Plate, richly gilt with armorial bearings in centre, and embossed border with scroll ornament gilt on marone ground. Marked in green similar to last.

G. 498. Porcelain Plate, with gilt feather edge, painted with border of flowers. Marked in green similar to last.

G. 499. Porcelain Plate, gilt edged, and painted with border of calceolaria. Marked in green,—"COPELAND," with cypher of double C.

G. 500. Porcelain Plate, gilt edged, and painted with peaches in centre, surrounded by border of peach blossom. Marked in green similar to last.

G. 501. Ewer and Basin in fine white earthenware, with simple gilt border. Marked in green, "COPELAND AND GARRETT," with crown and wreath; and stamped.

G. 502. Porcelain Ewer, of elegant form, painted with flowers on primrose ground; gilt dragon handles; neck gilt and jewelled. Marked in green similar to last.

G. 503. G. 504. Porcelain Door-handles, embossed and gilt, and painted in style of Watteau. Marked in green similar to last.

G. 505. G. 506. Porcelain Door-panels, oblong, painted with floral festoons and birds. Marked in green similar to last.

G. 507. Porcelain Door-panel, circular, painted with Watteau subject. Marked as last.

G. 508. Porcelain Panel, framed; 19 ins. by 14 ins., with vase of flowers as specimen of painting on china. Marked,—"COPELAND AND GARRETT."

G. 509. Rectangular Porcelain Plaque, painted with flowers in compartments, surrounded by richly-gilt scroll-work on turquoise-blue ground. Marked in green,—"COPELAND AND GARRETT," with crown and wreath.

G. 510. Circular Porcelain Plaque, painted in similar style; same mark.

G. 511. Square Porcelain Plaque, painted with flowers on pale green ground. Marked in red,—"COPELAND."

G. 512. Circular Plaque in white biscuit, with vase of flowers modelled in high relief; glazed in porcelain frame, painted pink, with raised scroll border in white and gold. Marked in green,—"COPELAND AND GARRETT," with wreath and crown.

G. 513. Porcelain Vase, or Spill-pot, with painted green body ornamented with coloured border of raised flowers, and terminated above with open wicker-work sides. Mark similar to last.

G. 514. Porcelain Finger-plate for door, edged in gold, and painted with flowers on cream-coloured ground. Mark similar to last.

G. 515. Porcelain Finger-plate, with embossed gilt border; centre painted in style of Watteau. Mark similar to last.

G. 516. Porcelain Cup and Saucer, white body embossed. Marked in green,—"COPELAND AND GARRETT," with crown.

G. 517. Porcelain Cup and Saucer, embossed and gilt. Mark similar to last, with addition of "𝔅𝔈ℜ𝔏ℑ𝔑."

G. 518. Two-handled Porcelain Cup and Saucer, painted with fruit and flowers in compartments on turquoise-blue ground; handles and border gilt. Marked in green,—"COPELAND AND GARRETT," with wreath and crown.

G. 519. Porcelain Cup and Saucer, painted with fruit in compartments on turquoise-blue ground, bordered in gold. Marked in green,—"COPELAND," with cypher of double C.

G. 520. Porcelain Cup and Saucer, painted with floral festoons and bordered in turquoise-blue and gold. Mark similar to last.

G. 521. Porcelain Cup and Saucer, with views on the Swiss lakes, painted in compartments on *bleu de roi* ground, gilt with diamond pattern. Mark similar to last.

G. 522. Porcelain Cup and Saucer, painted with fruit in compartment on *bleu de roi* ground, with gilt borders. Mark similar to last.

G. 523. Porcelain Cup and Saucer, gilt edged, and painted with border of heath. Mark similar to last, with the number 8350 in red.

G. 524. Earthenware Slab, in form of a framed picture; centre with specimen of transfer-printing in colours under the glaze; subject, Mulready's "Village Schoolmaster," or "The Last in;" frame embossed, painted in green and gilt. Marked in brown,—"F. AND R. PRATT AND CO., FENTON."

G. 524*a*. Female Bust, 11 inches high, in cream-coloured glazed ware, with a gilt band round the hair; impressed mark,—"W. H. GOSS."

G. 525. Earthenware Plate; centre painted with roses, border of yellow flowers on blue ground, gilt; edge raised and gilt. Marked in purple with royal arms and "C. MEIGH AND SONS," and in red "EARTHENWARE."

G. 526. Earthenware Plate, with angel in white and gold on sky-blue ground sprinkled with gold stars; border of red flowers and green leaves on dead black ground. Marked with royal arms and "EARTHENWARE," with "C. MEIGH" obliterated.

G. 526*a*. Jug, in white stoneware; octagonal body with ecclesiastical figures in 8 inches. Marked,—"Registered, March 17th, 1842, by *CHARLES MEIGH*, Hanley."

G. 526*b*. Cup in parian ware, ornamented outside with simple leaf-border between two sets of treble blue lines produced by a patent process.* Marked in brown,—"JOHN RICKHUSS AND CHARLES TOFT."

G. 527. Porcelain Plate, with bright orange-coloured border, edged in gold.

Presented by Messrs. Ridgway and Co.

The colour of this border is produced by chromate of lead.

G. 528. Porcelain Plate. Centre painted with flowers; border with flowers in three compartments on blue ground, spotted with gold. Unmarked.

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* Specification of Patents, No. 2268, October 25th, 1854.

G. 529. Earthenware Dish, with conventional forms of birds and flowers, painted and gilt. Minton's early mark in blue, with letter M and number 455.

G. 530. Earthenware Plate, with Chinese subject enamelled in colours and enriched with gilding. Minton's early mark in blue, with M and number 816.

G. 531. Porcelain Plate, with border of passion-flower printed in blue; marked in blue—

"M. & C."

(Minton), a triangle, &c.; and stamped "BB. New Stone."

G. 532. Porcelain Plate, with pressed plaited border, printed with flowers in blue. Marked,—"FELSPAR CHINA, M (Minton), 1367."

G. 533. Porcelain Plate, with raised gilt edge and floral festoons in gold on marone borders. Unmarked.

G. 534. Porcelain Plate. Centre painted with heart's-ease, with green border pencilled with gold ovals, and pressed gilt edge. Marked in red,—7663. Minton's manufacture.

G. 535. Porcelain Plate, painted with centre and border of cornflowers entwined round a blue hoop. Minton's ermine mark in gold.

G. 536. Porcelain Plate, painted with centre and border of roses tied with blue ribands. Minton's ermine mark in gold.

G. 537. Porcelain Plate, painted in centre with cupid-artists surrounded by gilt band of flowers on turquoise-blue ground. Border perforated, and painted with flowers in compartments. Minton's manufacture.

G. 538. Porcelain Plate, painted in centre with birds, and border of flowers in compartments, on turquoise-blue ground enriched with gilt festoons. Minton's manufacture.

G. 539. Porcelain Jar, 6 inches high, in Chinese style, with incised ornaments. Impressed mark,—"MINTON."

G. 539*a*. Column, 15½ inches high, in brown marbled ware, highly glazed; stamped "MINTON."

G. 540. Porcelain Mug, with view of Lord Bathurst's seat at Cirencester, in black bat-printing on the glaze; unmarked.

Presented by H. Minton, Esq.

In this process the print is transferred from the copper-plate to a bat of gelatine, and then on to the porcelain previously glazed. After the impression is thus printed in thick tar or oil, it is dusted over with enamel powder, which adheres to the tar, and the piece is then again fired.

G. 541. Porcelain Dish, circular, ornamented in purple bat-printing with groups of shells in centre, and in three compartments in the gilt hoop border. Minton's early mark in blue, with letter M and number 723.

G. 542. Porcelain Cup and Saucer. Thin body, painted with flowers in compartments with gilt borders on *rose du Barri* ground. Minton's ermine mark in green.

G. 543. Earthenware Basket and Stand, with pierced sides printed with the Chinese willow pattern in blue. Unmarked. Minton's manufacture.

This is one of the earliest examples of the printing of this well-known pattern.

G. 544. Pestle and Mortar, for chemical purposes, in hard porcelain. Minton's manufacture.

G. 545. EVAPORATING DISH for chemical purposes, in hard procelain. Minton's manufacture.

G. 546. PAIR of GREYHOUNDS, chained together and seated on a fringed cushion. Modelled in white biscuit prepared from Lord Morley's china-clay, Dartmoor.

G. 547. VASE, with pierced neck; *rose du Barri* ground, gilt with floral ornament and scroll-work, and painted with group of flowers in oval medallion. Minton's manufacture.

G. 547*a*. CELLINI BRACKET, in parian ware or statuary porcelain. Manufactured by Messrs. Minton and Co.

(Wall Case XXXV.)

G. 548. TEA-POT, in plain white porcelain, forming part of the tea service designed for the Society of Arts by Felix Summerly, and manufactured by Minton & Co.; marked in red bat-printing,—"SOCIETY of ARTS' PRIZE PATTERN, Minton & Co., Staffordshire," in belt surrounding the designer's monogram, "F. S. invt.," and date 1846.

G. 549 to G. 550. CREAM EWER, SUCRIER, CUPS and SAUCERS, SLOP BASIN, and PLATE, in plain white porcelain, forming part of the Society of Arts' prize pattern tea service of 1846; same mark as on the previous piece.

G. 548 to 550.—*Presented by the Society of Arts*, 1871.

G. 551. POUNDED DRY KAOLIN or china-clay, employed in the manufacture of tesseræ for tesselated pavements by Prosser's patent process.*

G. 552 to G. 552*b*. THREE BOXES of TESSERÆ, variously coloured, manufactured by Prosser's process.

The dry clay, in a state of fine powder, is subjected to hydraulic pressure, and its particles are thus forced to cohere into the required shape without employing the agency of water. It is then vitrified by firing.

In the centre of the entrance hall of the Museum is an example of a tesselated pavement from a design founded on a Roman mosaic pavement discovered at Woodchester in Gloucestershire. This pavement was executed by Messrs. Minton and Co., with tesseræ of their manufacture.

G. 553. TILE made by Prosser's process, with royal arms painted and gilt on white glazed surface. Manufactured by Messrs. Minton.

The following examples of modern tiles of Minton's manufacture are placed for convenience on the top shelf. Many of these are encaustic tiles. Each tile usually consists of three strata of clay, the superficial stratum being impressed with the pattern from a wooden mould. Coloured slips are then poured into the depressions, and, after partial drying, the surface is levelled down and the tile fired.

G. 554. SLAB of unbaked red clay, impressed with geometric pattern.

G. 555. SIMILAR SLAB, with cavities filled in with yellow slip.

G. 556. SIMILAR SLAB, fired, forming a paving tile of two colours.

G. 557. ENCAUSTIC TILE, of two colours.

G. 558. ENCAUSTIC TILE, of three colours.

G. 559. ENCAUSTIC TILE, of four colours, forming part of a running border.

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* Specification of Patents, No. 8548, June 17th, 1840.

G. 560. ENCAUSTIC TILE, of five colours, forming part of a guilloche border.

G. 561. ENCAUSTIC TILE, with sacred monogram in yellow on blue ground, surrounded by ornamental border in colours.

G. 562. ENCAUSTIC TILE, one foot square, with pattern in five colours.

G. 563. OBLONG ENCAUSTIC PANEL, with ornament in three colours.

G. 564. QUARRY of four encaustic paving tiles, in white and blue.

G. 565 to G. 567. THREE WHITE TILES, ornamented in blue transfer-printing.

G. 568. ROOFING TILE, in green-glazed ware.

G. 569. ROOFING TILE, yellow glazed.

G. 570 to G. 573. FOUR STOVE TILES, pierced, embossed, and coloured.

G. 574. FRAMED PANEL, composed of Messrs. Minton's tiles, upon which a painting has been executed in monochrome and burnt in, by Mr. B. E. Duppa's process, so as to resemble a drawing in red chalk; surrounded by a border of Greek fret in coloured tesseræ.

(Near Case XXXIII.)

This specimen was exhibited in the Great Exhibition of 1851, and honourable mention of Mr. Duppa's process was made in the jury reports.

The following specimens of modern Staffordshire porcelain and pottery were for the most part obtained from the Great Exhibition of 1851, and are grouped together in an adjacent pedestal case, No. 4.

G. 575. WINE-COOLER in porous cream-coloured earthenware (fig. 129). Height, 24 inches; diameter, 12 inches. Ornamented in relief with hunting subjects and festooned drapery pendent from foxes' heads. Cover surmounted by infants reaching grapes from a vase standing on a wine cask. Manufactured by Messrs. Minton & Co.

G. 576. HAREWOOD BOTTLE. Height, 15 inches; diameter, 6 inches. *Bleu de roi* ground, jewelled and gilt in vertical bands; neck tied with gilt ribbons. Design after an old Sèvres model. Manufactured by Messrs. Minton & Co.

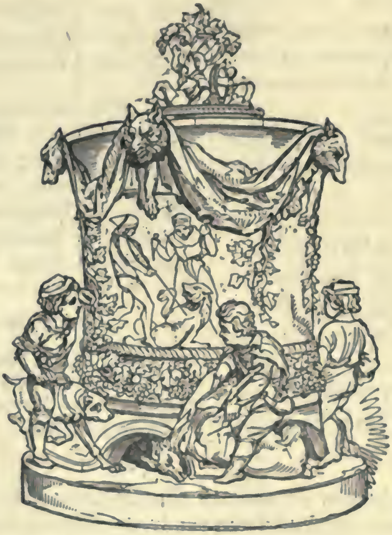
G. 577. PORCELAIN EWER. Height, 15½ inches. Ground of a colour called *Queen's*, gilt and jewelled; painted with landscapes in compartments with gilt borders. Handles springing from female masks in dead gold; trefoil lip gilt and burnished. Manufactured by Alderman Copeland.

G. 578. MAJOLICA VASE and COVER. Height, 18 inches; diameter, 10½ inches. Body painted with amorini at play, and ornamented in relief with coloured festoons of vine and grapes, with musical trophies, pendent from ram's-head handles. Blue cover, surmounted by boy with goat and grapes. Manufactured by Messrs. Minton & Co.

G. 579. PORCELAIN BOTTLE, with stopper chained to ormolu mount. Height, 9½ inches. *Bleu de roi* ground, sprinkled with ermine spots; richly enamelled, jewelled, and gilt. Manufactured by Alderman Copeland.

G. 580. PORCELAIN VASE. Height, 15½ inches; diameter, 6½ inches. Turquoise-blue ground, painted in pink monochrome, with cupids and flowers in compartments with gilt borders. Strap-shaped handle in white and gold, beaded. Cover blue and white, beaded. Manufactured by Messrs. Minton & Co.

Fig. 129.



G. 581. PORCELAIN VASE. Height, 12 inches; diameter, 5 inches. *Rose du Barri* ground, with musical emblems and flowers painted in medallions with chased gilt borders. Neck and foot ornamented with floral bands. Cover and rim perforated and gilt. Handles in form of female masks in dead gold. Manufactured by Alderman Copeland.

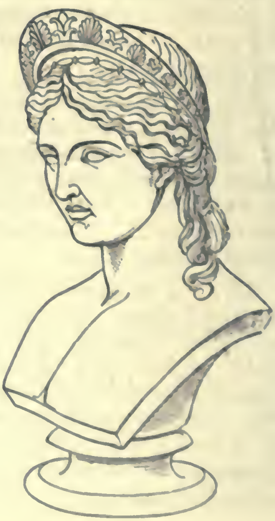
G. 582. WINE-COOLER in cream-coloured porous earthenware. Height, 19 inches; diameter, 12 inches. Body ornamented in low relief with Bacchanalian figures. Cover surmounted by infants placed back to back with clasped hands. Manufactured by Messrs. Meigh and Sons.

G. 583. BUST of JUNO, after the antique, in statuary porcelain or parian ware (fig. 130). Height, 24 inches. Manufactured by Alderman Copeland.

G. 584. BUST of Lady Clementina Villiers, by McDonald, in statuary porcelain. Height, 6¼ inches.

Manufactured and presented by the late Alderman Copeland.

Fig. 130.



G. 584*a*. Bust of Lord Eldon, in white biscuit, 9¼ inches high; marked in purple transfer-printing with a bee-hive and following inscription:—

"Published as the Act directs by
"Samuel Alcock & Co., Cobridge,
"Staffordshire, October 31st, 1828."

584*b*. Group, in white biscuit, representing two children playing with a rabbit; marked in relief,—"Pubd. by G. Baguley, *Hanley, Staffordshire*. 20 July, 1810."

The last figure is obscure; the date may be 1810 or 1818. It is interesting, however, to find so early a piece resembling parian in many of its characters.

G. 585. Two-handled Cup in parian ware. Height, 4¼ inches; diameter, 3¾ inches. Copy of a silver cup found at Pompeii, now in the Museo Borbonico at Naples. Manufactured by Messrs. Minton & Co.

G. 586. Two-handled Cup in parian, with ivy-leaf border in relief. Height, 4 inches; diameter, 3½ inches. Manufactured by Messrs. Minton & Co.

G. 587. Copy of the Portland or Barberini Vase in parian ware. Manufactured by Alderman Copeland. (For a notice of the Portland vase, see p. 135.)

G. 588. Statuette in parian ware: *Dorothea*, by John Bell. Height, 14½ inches. Manufactured by Messrs. Minton & Co.

G. 589. Statuette in parian ware: *Narcissus*, by John Gibson, R.A. Modelled by E. B. Stephen. Height, 12 inches.

Manufactured and presented by the late Alderman Copeland.

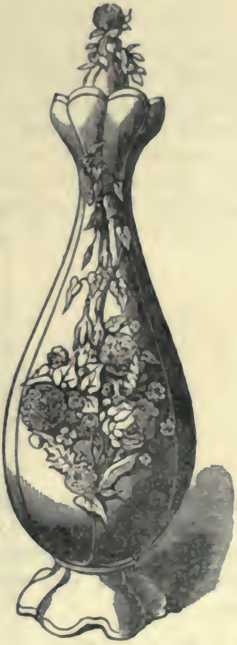
G. 590. Statuette in parian ware: *Innocence*, by J. H. Foley, R.A. Height, 16½ inches.

Manufactured and presented by the late Alderman Copeland.

G. 591. Cellini Vase and Stand in parian ware, touched with gold. Height of ewer, 13 inches; diameter of stand, 10½ inches. Manufactured by Messrs. Minton & Co.

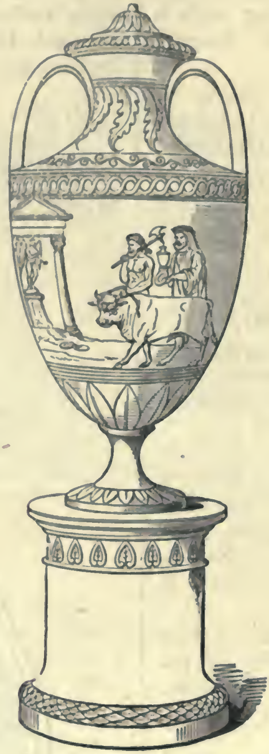
G. 592. Large Vase in parian ware (fig. 131). Height, 34 inches. Ornamented with flowers modelled in high relief. Manufactured by Messrs. T. and R. Boote, Burslem.

Fig. 131.



G. 593. Large double-handled Vase on Pedestal, in modern Wedgwood ware (fig. 132). Height, 31 inches. Dark blue ground, ornamented with white figures in relief. On the body of the vase a classic sacrificial procession; on the pedestal, floral festoons and trophies pendent from lions' masks. Manufactured by Messrs. Wedgwood and Sons.

Fig. 132.



The remaining specimens of Staffordshire ware, consisting for the most part of framed plaques, are distributed according to the available space over the walls in the neighbourhood of the cases containing the ceramic collection, partly on the eastern and partly on the western side of the Museum.

G. 594. **Framed Panel**, or rectangular porcelain plaque, ornamented with border of ternate leaves in white on blue ground. Copeland's mark.

(Near Case XXXIV.)

G. 595. **Framed Panel**, with arabesque ornament after an Alhambra pattern. Painted in yellow on ground of blue and red. Copeland and Garrett's mark.

(Near Case XXXIV.)

G. 596. **Framed Panel**, painted with group of orchidaceous flowers in proper colours. Copeland's mark.

(Near Case XXXIV.)

G. 597. **Framed Panel**, painted with view of Kocheim on the Moselle, within border of gilt scrollwork. Copeland and Garrett's mark.

(Near Case XXXI.)

G. 598. **Framed Panel**, painted with vase of flowers in gilt-edged compartment, and with floral festoons on primrose-coloured base, surrounded by gilt borders on pink ground. Copeland's mark.

(Near Case XIV.)

G. 599. **Framed Panel**, with geometric tile-pattern in yellow, on blue and brown ground. Copeland's mark.

(Near Case XI.)

G. 600. **Framed Panel**, with geometric ornament in blue and white; unmarked.

(Near Case XI.)

G. 601. **Framed Panel**, with scroll ornament in blue touched with gold. Unmarked.

(Near Case XI.)

G. 602. **Framed Panel**, painted with group of flowers in proper colours. Copeland's mark.

(Near Case I.)

G. 603. **Framed Panel**, painted with Watteau subject in compartment with richly gilt edge, surrounded by an ivory-coloured border edged in gold, on a turquoise-blue ground. Copeland and Garrett's mark.

(Near Case I.)

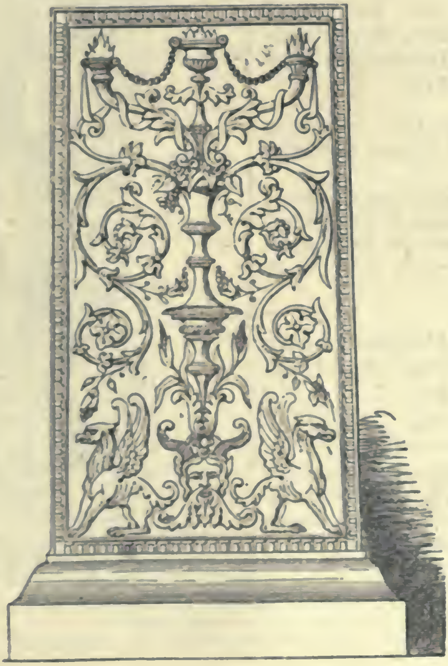
G. 604. **Pedestal of Perforated Enamelled Bricks**, painted on blue ground, with flowers and fruit tied with pink ribands. Manufactured by Messrs. Minton and Co.

(Near Case XIV.)

G. 605. **Pedestal of Perforated Enamelled Bricks** (fig. 133), painted with scroll-work, griffins, masks, &c., in white shaded with green on lilac ground; yellow egg-and-tongue border. Manufactured by Messrs. Minton and Co.

(Near Case XXXI.)

Fig. 133.



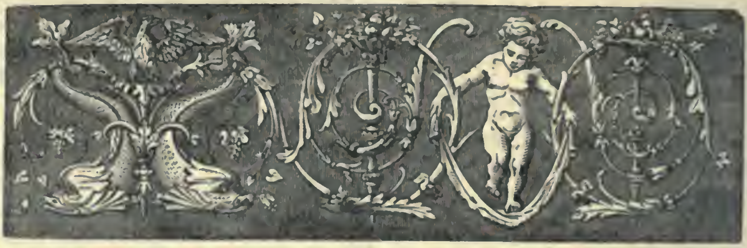
G. 606. Pedestal of Perforated Enamelled Bricks, with Cupid and pandean pipe painted in circular centre, and surrounded by coloured ornamented border. Manufactured by Messrs. Minton and Co.

(Near Case XLIV.)

G. 607. Majolica Frieze (fig. 134), painted in colours after the style of Luca della Robbia's ware. Manufactured by Messrs. Minton and Co.

(On plinth near Case 55.)

Fig. 134.



G. 608. Majolica Flower-pot and Stand. Height, 16 inches; diameter, 16 inches. Turquoise-blue ground, ornamented in relief with coloured festoons of flowers pendent from two ram's-head handles; flanged rim with egg-and-tongue border. Manufactured by Messrs. Minton and Co.

This specimen is placed on a pedestal at the head of the eastern staircase leading to the first gallery.

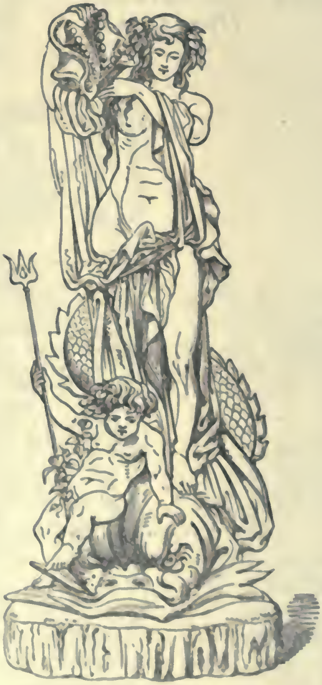
For examples of modern Majolica ware from the Benthall Works in Shropshire, see the collection presented by Messrs. Maw and Co., in wall-cases XXXIV. to XLIV. (p. 230).

G. 609. Large Figure of Galatea in terra-cotta (fig. 135). Height, 6 feet 6 inches.

Manufactured and presented by Messrs. Minton and Co.

This figure was exhibited in the Great Exhibition of 1851. On account of its size it is placed in the Hall, where it stands on a pedestal near the eastern wall.

Fig. 135.



BOW PORCELAIN.

[Wall Cases XI. and XII.]

It is generally believed that the porcelain works at Stratford-le-Bow were established about the year 1730, but the earliest authentic information concerning the factory does not commence until several years later. In 1744 a sample of china-clay was brought to this country from America; and, with the view of introducing this material at Bow, a patent was taken out in December of that year by Edward Heylyn, of Bow, merchant, and Thomas Frye, of West Ham, Essex, painter, for the production of a porcelain containing among other ingredients "an earth, the produce of the "Cherokee nation in America, called by the natives *unaker*." The Mr. Frye here mentioned, who was an artist and engraver, became manager of the Bow works, and during the subsequent partnership of Messrs. Weatherby and Crowther, assiduously devoted himself to the improvement of the manufacture, but in 1759 he was compelled to abandon the employment in consequence of ill-health, and in 1762 he died of consumption.

Some interesting particulars respecting the Bow factory are furnished by a document in the cover of a box in the British Museum containing a punch-bowl. The writing is signed "T. Craft, 1790," and informs us that "this bowl was made at the Bow china manufactory about the year, 1760, "and painted there by Mr. Thomas Craft. My cipher is in the bottom; "it is painted in what we used to call the old Japan taste, a taste at the "time much esteemed by the then Duke of Argyle; there is nearly two "pennyweight of gold, about 15 shillings; I had it in hand at different "times about three months; about two weeks' time was bestowed upon it; "it could not have been manufactured, &c. for less than 4*l*. There is not "its similitude. I took it in a box to Kentish Town, and had it burnt "there in Mr. Gyles's kiln; cost me 3*s*. . . . . The "above manufactory was carried on many years under the firm of Messrs. "Crowther and Weatherby, whose names were known almost over the "world. They employed 300 persons; about 90 painters (of whom I was "one), and about 200 turners, throwers, &c., were employed under one "roof. The model of the buildings was taken from that at Canton in "China."

Mr. Weatherby, one of the partners in the business at Bow, died in 1762, shortly, after Mr. Frye's death, and the next year Crowther became a bankrupt, but he appears to have retained an interest in the works for sometime after his failure. In 1777 Crowther was elected into Morden College, Blackheath, and Craft, writing in 1790, says, "I am the only person of all "those employed there who annually visit him." About the year 1775 or 1776 the Bow works were sold to Mr. William Duesbury, and the moulds and models were removed to Derby. The factory was afterwards converted into chemical works, and in Craft's time was used as a manufactory of turpentine.

Mr. Chaffers has published * some interesting extracts from certain account books and other documents used at the old Bow works, and now in the possession of Lady Charlotte Schreiber. These records date from the commencement of the partnership between Crowther and Weatherby in 1750–1, O.S., and not only show the large amount of business which was at one time carried on at the Bow works, but incidentally afford much information as to the character of the ware produced. But the most valuable information on this subject is that which was derived from the excavations at Bow in 1868, by Messrs. Bell and Black. While trenching a drain from the lucifer-match manufactory to the sewer the workmen found, at a depth of 8 or 10 feet from the surface, a number of fragments of old Bow porcelain and portions of saggers, the "find" being probably on the site of an old kiln. Some of these pieces, presented by Mr. Bell, are exhibited in this collection, and by showing the character of the Bow paste and the style of ornamentation have led to the identification of many pieces of Bow china which had previously been wrongly attributed to other manufactories. While some of the specimens brought to light by these excavations are coated with a glaze, most of them are merely in the state of biscuit, and are therefore cast-away fragments of unfinished ware. Many of the pieces of unglazed porcelain are painted in cobalt blue. Moreover there is evidence to show that as early as 1756 the managers of the Bow works availed themselves of Sadler and Green's method of transfer-printing, and occasionally sent their porcelain to be decorated at Liverpool. Among the productions of the old Bow factory may be especially noted its china statuettes. It is known that John Bacon the sculptor, worked at one time for Bow; and we learn from "Nollekens and his Times" that Moser, the keeper of the Royal Academy, also modelled for the Bow factory.

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* "Marks and Monograms on Pottery and Porcelain," by W. Chaffers, 4th edition, 1874, p. 892, *et seq.*

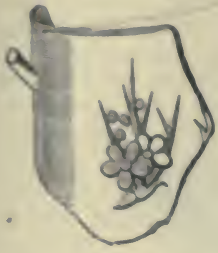
But little is known regarding the materials employed at Bow. According to Heylyn and Frye's patent, granted in 1744, one part of potash or pearl-ash is mixed with one part of sand or flint and a variable proportion of "unaker." In a subsequent patent taken out by Frye alone in 1794, no mention is made of the unaker; but it is said that a "virgin earth," produced by the calcination of certain "animals, vegetables, and fossils," is mixed with flint or sand and a certain proportion of pipeclay. The glaze is described as made of saltpetre, red lead, and sand, with the addition of white lead and smalts.

It is difficult to ascertain definitely what marks were employed at Bow. The triangle, commonly attributed to Bow, is considered by some collectors to be a Chelsea mark. It is believed that an anchor was sometimes used at Bow, and the well-known mark of the anchor and dagger is now usually referred to the Bow factory. A collection of other reputed Bow marks will be found in Mr. Chaffers's "Marks and Monograms," and some of these occur on pieces in the following catalogue. The greater number of the specimens, however, are unmarked, the identification being based on the character of the body and the style of ornamentation. It should consequently be understoood that, in the present state of our knowledge on this subject, the reference of the following pieces to the Bow manufactory, although great caution has been exercised, is in many cases only provisional.

H. 1. **Fragment** of a **Cup** in biscuit ware, ornamented with embossed five-petalled flower, known as the May-flower or hawthorn pattern (fig. 136). Found in excavations at the works of Messrs. Bell and Black, at Bow, 1868.

Presented by Mr. Bell.

Fig. 136.



H. 2. Cup in white glazed porcelain, ornamented with embossed May-flower pattern.

H. 3. Cup, of smaller size, in white glazed porcelain, ornamented with embossed May-flower pattern.

Presented by Mr. Brooks.

H. 4. Cup in white glazed porcelain, embossed with a different form of the May-flower pattern.

It may be mentioned that moulds corresponding with the raised ornament on this piece have been found at Bow.

H. 4*a*. Mug, in white glazed porcelain, ornamented with embossed May-flower pattern.

Presented by H. Willett, Esq., F.G.S., 1874.

H. 5. Knife-handle in biscuit ware, ornamented with embossed scroll-work. Found in excavations at the works of Messrs. Bell and Black, at Bow, 1868.

Presented by Mr. Bell.

H. 6. Knife-handle in white glazed porcelain, ornamented with embossed May-flower pattern. Broken.

H. 7. Knife-handle in white glazed porcelain, ornamented with embossed flowers and leaves.

Nos. H. 6 *and* H. 7 *presented by C. Schreiber, Esq., M.P., and Lady Charlotte Schreiber.*

H. 8 to H. 13. } Six Knife-handles in white glazed porcelain variously ornamented in relief with flowers, rococo scroll-work, &c.

H. 14. Knife-handle in white porcelain, painted with flowers in blue under the glaze.

H. 15. Knife-handle in white glazed porcelain, painted in blue under the glaze with flowers in Chinese style.

H. 16. H. 17. } Knife and Fork mounted in handles of white glazed porcelain, with embossed May-flower pattern.

H. 18. Handle for walking-cane, in white glazed porcelain, ribbed.

H. 19. Circular Disc of Frit, diam. 2½ ins., found in excavations at Bow.

H. 20. Fragment of Sagger, with a clay peg, like a clout nail, inserted through hole in the side, to support the ware while baking; found on the site of an old kiln at Bow.

H. 21. Cylinder of biscuit ware, or roll of baked clay, 4½ inches long; found at Bow.

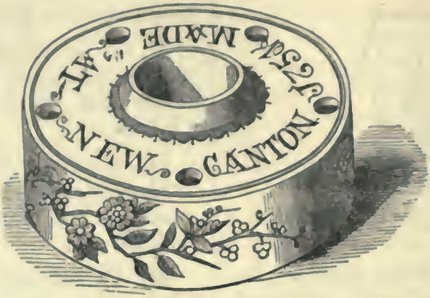
H. 19 *to H.* 21 *presented by Mr. Bell.*

H. 22. Inkstand (fig. 137). Diameter, 4 inches; height, 1½ inch. Body of white glazed porcelain; with characteristic Bow flowers enamelled on the sides, and an inscription running round the top, "MADE AT NEW CANTON, 1751."

Exhibited by Mr. Brooks.

Mr. Chaffers has shown that the Bow works were known in the early stages of their existence as "New Canton," and publishes from the memorandum books in Lady Schreiber's possession "A Weekly "Account of Bisket ware made at New "Canton" during the first six months of 1754. It will be noticed that Craft in his memorandum, preserved in the British Museum (p. 173), distinctly says that the works were built on the model of those at Canton in China. A similar specimen, but dated one year earlier, is in the possession of the Worcester Porcelain Company.

Fig. 137.



H. 23. **Inkstand**, circular; diameter 3¼ inches, height, 2¼ inches. Body of white glazed porcelain, enamelled with characteristic flowers around the sides and top; broken.

H. 24. **Cup** and **Saucer**, with fluted border, painted and gilt with pair of partridges or quails, and conventional foliage in oriental style.

This is the "partridge pattern" of which frequent mention is made in the MS. notes of John Bowcocke, published by Mr. Chaffers. The same pattern is found on Worcester and on Plymouth china.

H. 25. **Small Cup**, painted and gilt with the partridge pattern.

H. 26. **Dessert Dish**, in form of scallop shell, with narrow border in red and gold, and centre painted and gilt with partridge pattern.

Presented by Mr. Brooks.

H. 27. **Basin**, coarsely painted over the glaze with partridge pattern; the reverse rudely painted with flowers and scroll-work.

H. 28. **Vase** and **Cover**, 11½ inches high, ornamented with coloured flowers in high relief, and two female masks, and painted with butterflies and other insects; the shoulder and cover pierced with diamond pattern, having coloured bosses at the angles; unmarked.

H. 29. **Vase** and **Cover**, 9¼ inches high, ornamented with coloured raised flowers and two female masks; border pierced, with coloured bosses at the angles; unmarked.

H. 30. **Triple Salt-cellar**, formed of three valves of the clam-shell (*Tridacna*), grouped with shells, coral, and sea-weed, touched in colours; the interior of each clam-shell painted with flowers.

This piece is similar in its style of grouping to certain salt-cellars of Plymouth porcelain, but fragments identical with parts of this specimen have been found in the recent excavations at Bow.

H. 31. **Stand** for **Condiments**, in Bow porcelain, 6½ inches high, in form of three conventionalized valves of *Pecten*, grouped together with smaller shells, and surmounted by a *Buccinum;* the outer ribs and inner margins of the three large shells painted in blue.

H. 32. **Basin**, ornamented outside with embossed leaves having the veins coloured red and the margins green, and coarsely painted inside with fruit, flowers, and insects in dull colours over the glaze. Impressed mark attributed to Bow.

The mark, which is rather obscure, has been scratched in the paste before glazing, and corresponds with the mark quoted as Bow by Mr. Chaffers, in fig. 1, p. 905 of his "Marks and Monograms" (4th ed.). It will be observed that in this piece, as in many other early specimens of porcelain, the decoration is so painted as to conceal any defects in the body.

H. 33. **Small Cream Jug** in white porcelain, painted with flowers and insects; ornamented with two white goats in relief at the base, and bee modelled on front under the spout; handle of rustic pattern with raised flowers, coloured; incised mark, a triangle.

H. 34. **Small Cream Jug**, of similar form to last piece, in plain white porcelain; the bee broken off; incised mark, a triangle.

Although these specimens are usually attributed to Bow, it is possible that they may be early examples of Chelsea porcelain. A cream mug in the possession of Mr. W. Russell, and another in the possession of Mr. T. Thornhill, jun., both of similar paste and pattern to these pieces, bear the triangle, together with "*Chelsea*, 1745," indented in the paste; and there is also other evidence to show that the triangle was used as a Chelsea mark.[*] The two cream jugs here exhibited were formerly in the Strawberry Hill Collection.

H. 35. **Small Tea-pot** in porcelain, with surface moulded in form of leaves; white ground painted with flowers and insects, in early Bow style; incised mark under the glaze, a triangle.

H. 36. **Small Sucrier**, with fluted sides and base; white porcelain painted with butterflies and other insects and simple flowers; incised mark under the glaze, a triangle.

It may be remarked that in this piece, as in many others where the body and glaze are defective, the pattern is so disposed as to cover the imperfections; thus wherever a crack or bleb occurs the defect is hidden by a flower or an insect.

Nos. H. 33 *to* H. 36 *from the Bandinel collection, presented by Dr. Page.*

H. 37. **Figure of Infant**, with basket of flowers, painted and gilt; with a small triangle incised in the scroll-work base.

H. 38. **Figure of Infant**, with basket of flowers, in white porcelain, touched with gold; unmarked.

H. 39. } **Pair** of figures of an
H. 40. } actor and actress as Tamerlane and Roxalana; in white glazed porcelain, 7½ inches high.

H. 41. **Seated Figure** of an aged female, in white glazed porcelain; right arm and left hand broken.

H. 42 } **Three Female Figures**,
to } in coarse porcelain with
H. 43. } discoloured glaze.

H. 45. **Figure**, 6½ inches high, painted and gilt; a youth with dog begging at his side; marked in blue under the glaze with a capital cursive B obscured by having an anchor and dagger painted in red over the glaze; broken.

Coll. Burns.

The mark of an anchor and dagger in red, occurring on this and the four following pieces, has sometimes been regarded as an early Chelsea mark. Most collectors, however, now agree in attributing it to Bow, an attribution which receives some support from the letter B marked upon this figure. A similar piece in the possession of Mr. Barnard bears the mark of a dagger in blue and anchor and dagger in red.

H. 46. **Figure** of a youth, 7½ inches high, painted and gilt; left arm broken, and dog at right side wanting; marked in red with anchor and dagger.

Coll. Burns.

H. 47. } **Pair** of male and female
H. 48. } **Figures**, 6 inches high, painted and gilt; the man singing while the female (fig. 138) plays the *pastorella;* each figure marked in red with anchor and dagger.

The pastorella represented in the figure was a musical instrument in general use previously to the introduction of the *spinet.*

It may be remarked that at the back of each of these figures, near the base, a square hole has been pierced before glazing, for the purpose of receiving a metal stem supporting nozzles for candles. As this square hole is said to be never found on similar Chelsea pieces, it has come to be regarded as a distinctive feature of old Bow figures.

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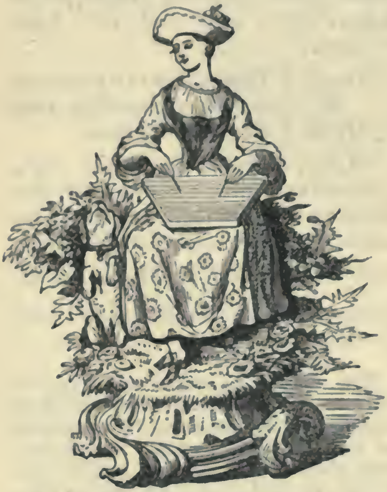
[*] *See* Mr. A. W. Franks' "Notes on the Manufacture of Porcelain at Chelsea."

Fig. 138.



H. 49. Two-handled Cup and Saucer, with diamond-pressed body and broad pea-green border; marked in red with anchor and dagger.

H. 50. Bottle, with four-lobed body and flattened sides, painted with flowers and insects, and ornamented with vine and squirrels in relief round the neck; unmarked.

Presented by S. Addington, Esq.

H. 51. Hexagonal Pedestal embossed with floral festoons and painted with sprigs of flowers in alternate compartments.

H. 52. Sauce-boat, with pressed leaf pattern on the outside, enamelled with flowers; marked in red with an arrow having an annulet on the shaft.

H. 53. Sauce-boat in white glazed porcelain, with embossed May-flower pattern, mounted on three feet formed of lions' heads and claws; handle terminated in mask looking into the boat.

H. 54. Sauce-boat, painted with flowers in Chinese style in blue under the glaze; mounted on three feet formed of lions' heads and claws; handle terminating in mask.

H. 55. Cup, in oriental porcelain, painted at Bow, with flowers in three compartments, alternating with others occupied by spiral lines and insects.

Presented by Dr. Diamond, F.S.A., 1873.

From the collection of the late Rev. G. A. F. Hart, of Arundel, for whose grandfather the service, of which this piece formed part, was painted at Bow.

H. 56. Cup, in oriental porcelain, enamelled at Bow with arms of the family of Milner, surrounded by English flowers; shield, erminois, three lions' heads erased, sable, langued gules: on other side of the cup a crest; a wolf passant, erminois, langued and tipped gules.

Presented by Dr. Diamond, F.S.A., 1875.

H. 57. Cup, in porcelain, ornamented with Chinese subjects painted in blue under the glaze; perhaps of Bow manufacture.

H. 58. Scent Bottle, ornamented with flowers modelled in high relief and coloured.

H. 59. Salt-cellar, formed of small bowl with gilt edge, covered externally with raised flowers painted blue and yellow, and mounted on three feet formed of lions' masks and claws.

H. 60. Small Tureen and Cover, in white glazed porcelain, with embossed acorns and oak-leaves; rustic handles.

H. 61 to H. 61*a*. } Pair of Ornaments in plain white glazed porcelain; cow couchant beneath a tree which originally supported nozzle for candle.

It has been suggested that these figures should be attributed to the Rockingham works.

H. 62. **Jug** in white glazed porcelain, embossed with classic female figures in compartments, surrounded by scroll-work and flowers springing from a base of shells.

This piece is very doubtfully attributed to Bow.

N.B.—The following specimens are placed at the back of Cases XI. and XII.

H. 63. **Plate**, 9 inches in diameter, enamelled with flowers and insects, and the border ornamented with embossed May-flower pattern.

This is a typical example of early Bow porcelain. The body is a coarse chalky-white ware, covered with a glaze which is much pitted and speckled in firing; the bottom shows three strong marks, representing the points on which the piece rested in the kiln.

H. 64. **Plate**, 7¾ inches in diameter, with gilt shaped edge; centre ornamented with large blue star of eight rays, enriched with gilding; also painted with exotic birds and insects; marked in red with anchor and dagger.

H. 65. **Plate**, octagonal, 9½ inches in diameter; painted in centre with a bold group of mallow flowers, and on the border with six insects; edge brown.

H. 66. **Plate**, with narrow border of enamelled flowers, and centre ornamented with transfer-printing in red over the glaze; subject, a garden scene with gallant kissing his lady's hand.

This is a delicate specimen of late Bow porcelain, both the paste and glaze being finer than those of the preceding pieces. The subject of the engraving is often found on specimens of early printed Worcester porcelain, (compare N. 40*a*.) It is known that china was sent from the Bow factory to Liverpool to be printed, and references to printed pieces occur among Bowcocke's memoranda. The method of printing on china originated with Sadler and Green, of Liverpool, about 1750, or soon afterwards.

H. 67. **Dish**, in form of scallop shell; thick dense body, painted with deep blue ground, leaving eight compartments occupied by Chinese subjects pencilled in blue on white ground; back moulded with shell pattern.

Bandinel Collection.

H. 68. **Dish**, square, 7½ inches in the side; painted with flowers and insects, and embossed with May-flower pattern; the border painted in vermilion and gold similar to that on some of the quail pattern service; marked in red with letter E, probably a painter's mark.

H. 69. **Dessert Dish** in white glazed porcelain with fluted sides and embossed floral border.

H. 70. **Dessert Dish**, octagonal, with embossed wicker pattern, and pierced scroll handles.

H. 71. **Hotwater Plate**, in dense body resembling oriental porcelain, enamelled with flowers; broken.

H. 72. **Compotier**, with embossed border painted with pink quatrefoils and blue shells; centre painted with exotic birds.

H. 73. **Sauce Boat**, ornamented with enamelled flowers, and birds in pressed panel.

H. 74. **Pickle-leaf**, ornamented with border of enamelled flowers.

H. 75. **Dish**, in plain white glazed porcelain, ornamented with pressed pattern of wicker, diaper, and scroll work, similar to that on some of the old Staffordshire salt-glazed ware.

Presented by Dr. Hugh Diamond, F.S.A., 1875.

CHELSEA PORCELAIN.

[Wall Cases XIII. and XIV.]

From a passage in a work by Dr. Martin Lister, published in 1699,* it has been inferred that an inferior kind of porcelain, probably at first little better than opaque glass, was manufactured at Chelsea prior to that date. Whatever construction may be put upon this passage, it is useful as probably pointing to the origin of the porcelain works there established, it being well known that pounded glass entered into the composition of the earlier so-called porcelain at Chelsea. From the fact of a manufactory of glass having been established there by some Venetians, under the auspices of the Duke of Buckingham, in 1676, the making of opaque glass would be well understood, and it may have happened that a transition was effected from this manufacture through that of pounded glass, clay, and sand, to the porcelain subsequently made.

Although the exact date of the establishment of the porcelain works at Chelsea has not been ascertained, it was probably as early as 1745. A cream jug marked with an impressed triangle, in the possession of Mr. W. Russell, is dated "Chelsea, 1745," and it has been supposed that the manufacture had then obtained considerable importance, for the French Company, which at that time desired the exclusive privilege of establishing a porcelain manufactory at Vincennes (subsequently that of Sèvres) urged the benefit that France would gain by having works which should exclude the German and *English* porcelain. It has been suggested, however, that this reference may have been made to the productions of Bow rather than to those of Chelsea. Be that as it may, it is known that in 1747 several persons came from the Staffordshire potteries, and settled at the Chelsea works.

The Chelsea works were especially patronised by George II., who procured models, workmen, and even materials from Saxony and Brunswick for them.† The period of the greatest excellence of the Chelsea porcelain is considered to have been between 1750 and 1765, and there was then so much demand for it, that dealers are described as surrounding the doors of the works, and purchasing the pieces as soon as they were fired. Large prices were given for this porcelain,‡ and much skill was exhibited in the enameling. The claret colour has been considered as the most remarkable of those employed; but some other enamels are equally good.

It would appear from a memorial§ presented to the government that the proprietor or conductor of the works, styled "the Undertaker of the Chelsea Manufacture of Porcelain Ware," was "a silversmith by profession," who, "from a casual acquaintance with a chymist who had some "knowledge this way, was tempted to a trial, which upon the progress he "made, he was encouraged to pursue with great labour and expense." Unfortunately the date of the memorial is not given, but it may be supposed to have been sent in not long before the works were closed. It mentions that at least one hundred persons were then employed, "of "which is a nursery of thirty lads taken from the parishes and charity "schools, and bred to designing and painting, arts very much wanted here, "and which are of the greatest use in our silk and linen manufactures." The memorialist complains sadly of the smuggling sales of the Dresden porcelain, allowed to be imported for private use, but otherwise prohibited, pointing out "that a certain foreign minister's house has been for a course "of years a warehouse for this commerce, and the large parcel advertized "for public sale on the seventh of next month is come, or is to come, from "thence." It appears that this Dresden porcelain paid only eightpence by the pound when entered for private use, so that the competition established became finally very injurious to the Chelsea manufacture. The memorialist speaks of having sold to the value of more than 3,500*l.* during the previous winter, "which," he adds, "is a great deal, considering the thing "is new, and is of so great extent that it has been beyond the reach of his "industry to produce such complete assortments as are required in a "variety of ways." It is believed that a smaller factory at Chelsea, was also at one time engaged in the manufacture of porcelain, but its productions were probably unimportant.*

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* "Journey to Paris in the year 1698." By Dr. Martin Lister, London, 1699.

† The celebrated Dr. Johnson is mentioned in Faulkner's *History of Chelsea*, not only as taking great interest in the Chelsea porcelain works, but also as experimenting at them, though apparently with no great success.

‡ Mr. Marryat (*History of Pottery and Porcelain*, 3rd ed., p. 372) quotes part of a letter from Horace Walpole to Sir Horace Mann, of the 4th March 1763, in which he mentions having seen a set of Chelsea porcelain about to be presented by the King and Queen to the Duke of Mecklenburg, which was to cost 1,200*l.*

§ Lansdowne MSS., No. 829, fol. 21, printed at length in Marryat's "History of Pottery and Porcelain," 3rd ed., p. 373.

As early as 1764, attempts were made by Mr. Nicholas Sprimont, for some time the proprietor of the Chelsea works, to dispose of the manufactory and its appurtenances. In 1769 the works passed into the hands of Mr. William Duesbury, of Derby, and for some time he carried on the business at Chelsea and Derby simultaneously, and the Chelsea works were not finally discontinued until the year 1784, when the available plant was transferred to Derby, whither many of the workmen and artists also proceeded. (See Derby Porcelain, p. 186.)

According to Faulkner (*History of Chelsea*), the Chelsea china manufactory was situated at the corner of Justice Walk, and occupied the houses at the upper end of Lawrence Street. Several of the large old houses were used as show rooms. These houses were long since pulled down, and others erected in their place. In July 1843, upon digging the foundation for Cheyne Row West, extensive remains of the Chelsea porcelain works were found, including large quantities of broken vases, figures, &c.

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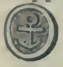
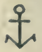
* "Charles Simpson, 63 years of age in 1817, was born at Chelsea, to which place his father Aaron Simpson went in 1747, along with Thomas Lawton, slipmaker, Samuel Parr, turner, Richard Meir, fireman, and John Astbury, painter, all of Hot Lane; Charles Wedgwood, of the Stocks, a good thrower, Thomas Ward, and several others of Burslem, to work at Chelsea china manufactory. They soon ascertained that they were the principal workmen on whose exertions all the excellence of the porcelain must depend; they then resolved to commence business on their own account at Chelsea, and were in some degree successful; but at length owing to disagreement among themselves, they abandoned it and returned to Burslem, intending to commence there the manufacture of china; but soon after their return, Aaron Simpson died, the design was relinquished and each took the employment quickly offered in the manufacture of white stone-ware, then sold readily on the day of drawing the oven."—*Shaw's History of the Staffordshire Potteries, Hanley*, 1829, *p.* 167.

While the sand for the Chelsea porcelain was obtained from the Isle of Wight (p. 14), and perhaps some of the clay also, it may easily have happened that the clays of Poole in Dorset were likewise employed. These clays were then well known (p. 6), and would scarcely be neglected by the Chelsea manufacturers. The supposition that kaolin was actually imported from China for these works is improbable, but it may have originated from the fact that plain porcelain, according to some authorities, was imported from China to be enamelled at Chelsea.

As regards marks, the earliest pieces of Chelsea porcelain do not appear to have had any. The embossed oval with raised anchor upon it  is generally considered to be an early mark, though reasons have been adduced for attributing it to Bow. The general mark was the anchor , either gilt or painted over the glaze, commonly in red; the former usually affixed to the best porcelain. Two anchors were sometimes employed.

The anchor and dagger is now generally regarded as a Bow rather than a Chelsea mark, whilst the incised triangle may have been used at both manufactories. (See Bow, p. 174).

I. 1. Bust of the Duke of Cumberland, in plain white glazed porcelain, unmarked.

Presented by the late C. H. Caruthers, Esq.

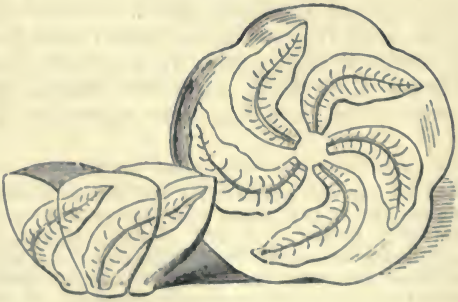
William, Duke of Cumberland, is known to have been a great patron of the Chelsea porcelain works; indeed it is believed that he was at one time associated with Sir Everard Fawkener, in the proprietorship of the factory. The duke was born in 1721 and died in 1765.

I. 2. Square Pedestal or Altar in white porcelain with embossed flowers; mark, the embossed oval and raised anchor.

This is generally regarded as the earliest known Chelsea mark, but it has been suggested that it may with greater propriety be attributed to Bow.

I. 3. Cup and Saucer (fig. 139), edged in brown and painted with leaves in bluish green with yellow midrib and brown veins; mark, the embossed oval and raised anchor.

Fig. 139.



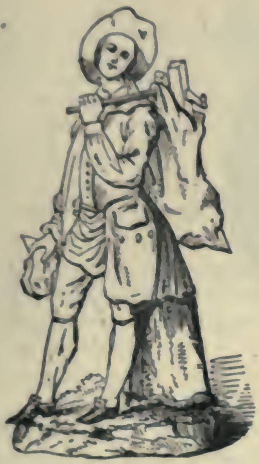
I. 4. Figure of a Bird in white porcelain, distorted in the firing, and bearing traces of having been painted; mark, the embossed oval with raised anchor.

I. 5. } Pair of male and female
I. 6. } Figures, 11½ inches high, painted and gilt; mounted on scroll-work bases, and surrounded by raised

flowers supporting nozzles for candles; unmarked.

I. 7. **Figure** of a **Carpenter**, with bag of tools (fig. 140), 8 inches high, coloured; marked with anchor in red.

Fig. 140.



I. 8. **Covered Two-handled Cup** and **Saucer**, with pressed scale-pattern, painted with flowers; marked with small anchor in brown.

I. 9. **Four-lobed Cup** and **Saucer**, with well for base of cup; edged in brown and painted with flowers; marked with anchor in red.

I. 10. **Cup** and **Saucer**, with ribbed and fluted body; painted with landscape in purple monochrome; marked with anchor in red.

I. 11. **Cup** and **Saucer**, with gilt rim, painted with birds; marked with anchor in gold.

I. 12. **Cup** painted with flowers in purple camaieu; marked with anchor in red.

I. 13. **Cup**, octagonal, brown-edged, painted with slight flowers and insects; unmarked.

I. 14. **Cup** and **Saucer** of Oriental porcelain, painted with exotic birds at Chelsea.

Presented by A. W. Franks, Esq., M.A., F.R.S.

I. 15. **Saucer** of Oriental porcelain, painted with birds at Chelsea.

Presented by A. W. Franks, Esq., MA., F.R.S.

It is believed that plain porcelain was imported from China to be decorated at Chelsea, and this may have given rise to the popular notion that China clay was surreptitiously procured from China for use at this manufactory.

I. 16. **Two-handled Cup** and **Saucer**, with floral ornament and gilt scrolls; marked with gold anchor.

This is probably a piece of late date, since the decoration is somewhat in the Derby style.

I. 17. **Cup**, with diamond-pressed body, gilt edged and painted with green leaf-border, running round a purple band. Marked in gold with an anchor surmounted by a crown.

It is believed that this rare mark was used at Chelsea after the works were purchased by Mr. Duesbury: that is during the period between 1770 and 1784.

I. 18. **Cup** of similar style to last piece, with cream-coloured body. Same mark as on I. 17.

Nos. I. 17 *and* I. 18 *presented by John Loraine Baldwin, Esq.*

I. 19. **Small Vase**, 6½ inches high (fig. 141); dark blue ground enriched with gilding; exotic birds, in characteristic Chelsea style, painted in heart-shaped compartments; marked with two anchors in gold, one being inverted with respect to the other.

I. 20. **Basin**, with embossed floral ornament, border of painted flowers, and blue and gold rim; marked with anchor in gold.

I. 21. **Covered Vessel** in form

of a bundle of asparagus, coloured; marked in red with anchor and No. 63.

I. 22. **Covered Vessel** in form of a melon, coloured; marked in red with anchor and No. 9.

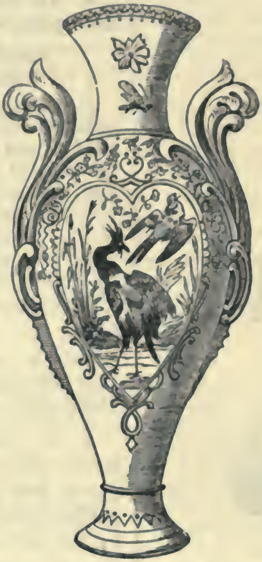


Fig. 141.

N.B.—The following specimens are placed at the back of Wall Cases XIII. and XIV., commencing on the upper shelves.

I. 23. **Plate**, with brown edge, painted with conventional flowers and insects; marked with anchor in red.

I. 24. **Compotier**, circular, with lobed border, and brown edge painted with red fox and conventional design in Chinese style; marked with anchor in red.

The pieces I. 23 and 24 are examples of early Chelsea porcelain, the paste being extremely dense and the glaze much pitted on the surface.

I. 25. **Compotier**, circular, with gilt lobed edge, coarsely enamelled with flowers on yellow ground; marked withe anchor in brown.

I. 26. **Compotier**, circular, with shaped edge, dull red border, and flowers enamelled on yellow ground; marked with anchor in brown.

The yellow ground on I. 25 and 26, appears to have been applied subsequently to the original decoration of the pieces.

I. 27. **Compotier**, circular, edged in brown and coarsely painted with fruit; marked with anchor in brown.

I. 28. **Plate**, with turquoise blue edge and crimped border, coarsely painted with fruit; marked with anchor in brown.

I. 29. **Plate**, with shaped edge, gilt; finely painted with exotic birds; marked with anchor in gold.

An examination of the back of this specimen shows that the glaze is accumulated around the base in "tears;" whilst in most specimens these inequalities are removed by the rim having been ground smooth.

It may also be observed that many of these early pieces exhibit on the back three strongly-defined marks produced by contact with the supports on which they rested during firing.

I. 30. PLATE, painted with flowers, with raised scroll edge in brown and green; marked with anchor in brown.

The body of this plate is thick; the basal rim, like that of many other pieces, has been ground smooth; and certain defects in the paste are concealed by having sprigs of flowers painted over them.

I. 31. } TWO PLATES, with surfaces covered with profusion of painted roses, tulips, and other flowers; marked with anchor in gold.
I. 32. }

I. 33. PLATE, with shaped edge, coarsely painted with plums, currants and flowers, on an opaque white glaze; unmarked.

Compare painting with that on the dish I. 40.

I. 34. PLATE, with embossed floral ornament; edged in brown and painted with sprigs of flowers; unmarked.

(On the bottom shelf.)

I. 35. OCTAGONAL DISH, diameter, 9½ inches, with embossed floral ornament and painted flowers; marked with anchor in red.

I. 36. COMPOTIER, octagonal, diameter, 9 inches by 7½ in., with brown edge; coarsely painted with fruit and insects; marked with anchor in brown.

Compare style of painting with that on I. 27.

I. 37. COMPOTIER, circular, 9 ins. in diameter, with fluted border and brown edge, painted with bold flowers and insects; marked with anchor in red.

I. 38. DESSERT DISH, leaf-shaped, with pressed pattern and gilt edge; painted with red mid-rib, green margin and centre group of flowers; marked with anchor in gold.

I. 39. DESSERT DISH, leaf-shaped with pressed pattern and coloured flowers and leaves; marked with anchor in red.

I. 40. DESSERT DISH, broad heart-shaped, with gilt edge; coarsely painted with pear, currants, and flowers; unmarked.

Compare style of painting with that on I. 33.

I. 41. DESSERT DISH, broad heart-shaped, gilt edged, painted with small roses and leaf-border in violet with green festoons; marked with anchor in red.

I. 42. DESSERT DISH, broad, heart-shaped, with green edge; painted with fruit and insects; marked with anchor in red.

I. 43. COMPOTIER, lozenge-shaped, with lobed border, painted with flowers in green camaieu; marked with anchor in purple.

(On the bottom shelf.)

I. 44. LARGE CIRCULAR DISH, with embossed border and brown edge; 13 inches in diameter, painted with flowers in characteristic style; marked with anchor in red.

I. 45. LARGE OCTAGONAL DISH, diameter, 16 inches by 12 inches with pressed border of diamonds and quatrefoils, painted with flowers and insects; marked with raised anchor in embossed oval medallion.

I. 46. LARGE TUREEN, COVER, and STAND, ornamented with flowers and leaves in relief, and painted with groups of flowers in blue and purple; shaped edge, coloured brown; rustic handles, tinted green; raised flowers, tinted blue, yellow and green; the tureen and plateau marked with anchor in red.

This is an early piece of Chelsea porcelain with very thick and dense body, highly glazed, and decorated in characteristic style. The base of the tureen and of the plateau shows three strong stilt marks. The piece has been broken in several places, and repaired by rivetting.

I. 47. Large Vessel in form of a swan, modelled in white porcelain, with flowers painted round the rim, on to which the cover fits.

This large specimen is unmarked, but the painting is in characteristic Chelsea style. It stands at present outside, on the top of Case XIV.

Derby Porcelain.

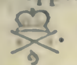
[Wall Cases XV. to XIX.]

Long before the celebrated porcelain factory was established at Derby, there existed at Cockpit Hill an extensive pottery generally known as "The Derby Pot Works." Nothing appears to have been ascertained about the foundation of these works, but it is known that they continued in operation up to the time of the bankruptcy of the proprietors, Messrs. John and Christopher Heath, in 1780. Although earthenware was the staple manufacture at Cockpit Hill, it appears that porcelain was made to a limited extent. The earliest examples of china produced in Derby were small figures of animals and other ornaments, manufactured by a foreigner in Lodge Lane about the year 1745. From this person the art of china-making appears to have been learnt by Mr. William Duesbury, who was at one time connected with the Cockpit Hill Works, and subsequently built the famous china factory on the Nottingham Road, beyond St. Mary's Bridge. These works were founded in 1751, and the business having gradually developed, Mr. Duesbury was led in 1769 to purchase the Chelsea works. The two establishments being thus united under one proprietor, the Chelsea anchor was associated with the letter 𝒟, as the initial of either Duesbury or Derby, and the porcelain bearing this composite mark became known as "Chelsea-Derby." When the Chelsea works were abandoned in 1784, the moulds and models were transferred to Derby, and it is believed that at least a portion of the plant from Bow was also transported thither. Some of the best workmen and artists from both Chelsea and Bow are well known to have settled at Derby.

Upon the decease of Mr. William Duesbury, in 1786, his eldest son carried on the Derby porcelain works for many years, in partnership during part of the time with Mr. Michael Kean. Both are stated to have been good artists. After the death of the second Mr. William Duesbury, the business was managed by Kean, assisted by a third William Duesbury. Eventually the business was thrown into Chancery, and it ultimately became the property of Mr. Robert Bloor, who had been clerk to the firm of Duesbury and Kean. Mr. Bloor, after a long illness, died in 1846, and the old factory was pulled down about this time; after its demolition a nunnery was built upon the site, but this in turn was destroyed in 1863. After Bloor's death the Derby china business passed into the hands of Mr. Thomas Clarke, who soon sold it to Mr. Boyle, of Fenton, and in 1849 the concern was finally broken up.

On the closing of the old works, a small manufactory was established in King Street by Mr. Locker, who had for many years been manager to Bloor. He was succeeded by Messrs. Stevenson, Sharp, and Co., and the firm subsequently became Stevenson and Hancock. At present the factory is in the hands of Mr. Sampson Hancock.

There is much uncertainty respecting the materials at first employed at the old Derby porcelain works. It is not improbable, however, that they were almost the same as those employed at Chelsea, seeing that Derby owed much of its importance to the acquisition of workmen from Chelsea and Bow. The Bideford clay was probably known at Derby even when the works were first established, as that clay was then much used in the Staffordshire potteries, and the ware made with it was in great demand between 1730 and 1741. At one time the Derby works obtained clay from a lead mine at Brassington, but its use was soon given up. The Cornish kaolins and china stones, which became well known to the potters, especially after their introduction into the Staffordshire potteries about 1777, appear to have been employed in the Derby works towards the end of the last or beginning of the present century, and to have continued in use up to the present time.

After the Chelsea-Derby, or Chelsea-Dnesbury mark, previously noticed, the earliest known Derby mark is that of the intial 𝒟, surmounted by a crown, in allusion to the royal patronage with which Deusbury was first favoured about 1773. At a latter date he added the cross batons with three dots in opposite angles, thus completing the well-known "Crown-Derby" mark . This was discontinued in 1831, but was afterwards revived at the King Street works, and is still used in a modified form. Examples of most of the marks will be found among the following specimens, but it has been found impossible to adhere to a strictly chronological order, in consequence of the necessity of arranging the pieces in such space as was available.*

J. 1. Two-handled Cup and Saucer, painted with flowers in gilt-edged medallions, with green festoons. Chelsea-Derby mark in gold.

The script initial 𝒟 and the anchor, known as the Chelsea-Derby or Chelsea-Duesbury mark, was introduced by the first William Duesbury on his purchase of the Chelsea works in 1769. It appears to have been used indifferently at Derby and and at Chelsea.

J. 2. Cup and Saucer (fig. 142), with ribbed body, painted with flowers and blue border, enriched with gilt running ornament. Chelsea-Derby mark in gold.

J. 3. Cup and Saucer, painted with sprigs of flowers and border of laurel leaves with gilt medallions. Chelsea-Derby mark in gold.

J. 4. Cup and Saucer, with ribbed body and turquoise-blue border edged with gilt ornament. Chelsea-Derby mark in gold.

J. 5. Cup and Saucer, with diamond-pressed body, gilt edged and painted with border of flowers. Chelsea-Derby mark in gold.

J. 6. Cup and Saucer, with ribbed body, gilt edged and painted with border of floral festoons in green. Chelsea-Derby mark in gold with 𝒩 scratched in the paste of the saucer.

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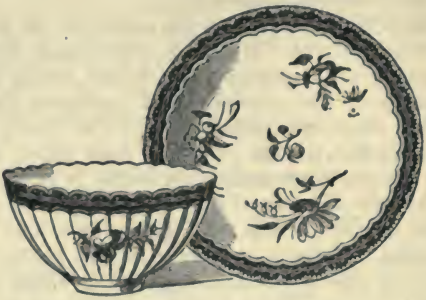
* For information contained in the foregoing notice of the Derby works we are indebted to a pamphlet on "The Pottery and Porcelain of Derbyshire," by Alfred Wallis and William Bembrose, jun.; and to Mr. Chaffer's "Marks and Monograms." The history of the Derby works is now being written by Mr. John Haslem.

Fig. 142.

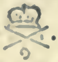


J. 7. Dish with pressed border, painted and gilt in oriental style, with spiral compartments decorated alternately white on blue ground and red on white ground. Chelsea-Derby mark in gold.

J. 8. Mug, with gilt edge, painted with flowers. Chelsea-Derby mark in gold.

J. 9. Cup and Saucer, with blue and gold borders, and painted garlands and festoons. Marked in slaty-blue with 𝒟 surmounted by a crown.

This mark was introduced by the original William Duesbury about 1773, and is believed to be the earliest distinctive Derby mark. It is generally executed in blue, as on this piece, and the bows of the crown are carefully jewelled.

J. 10. Cup and Saucer, with pressed imbricated scales, touched with gold, and border of gilt hoops and dots; Crown-Derby mark in puce .

It is believed that the cross batons with three dots in the opposite angles were added to the Derby mark by the second William Duesbury about 1788. In the early Crown-Derby pieces the mark is generally executed in puce or lilac, and the crown is carefully jewelled or dotted.

J. 11. Oval Basket and Stand, with deep border pierced with diamond pattern and enriched with gilding; centre painted with flowers; Crown-Derby mark in vermilion.

In the later productions of the Duesbury period, the mark was rudely executed, and the crown was hastily pencilled without jewelled bows.

J. 12. } Pair of Figures, 5½ ins.
J. 13. } high, painted and gilt; youth playing flute, and female with hurdy-gurdy. Marked in blue under the glaze with crossed swords in imitation of Dresden.

The delicate lacework on this figure is also in imitation of the Dresden style.

J. 14. Bottle, 9½ inches high; *bleu-de-roi* ground, enriched with gilding and painted with birds and flowers in compartments. Marked in blue with jewelled crown, D, and two crossed L's in imitation of Sèvres.

J. 15. Bottle, 10 inches high; deep blue ground with gilt sprigs of flowers, ornamented with flowers modelled in high relief and coloured. Mark thumb-printed in red, crown and "DERBY" in motto.

J. 16. Bottle, 9½ inches high; dark pink ground enriched with gilding, and painted with flowers in compartments. Mark printed in red, "BLOOR, DERBY," in circle surrounding a crown.

MM. Chevreul and Ebelman, the eminent French chemists, on examining this specimen were struck with the beauty of the colour, and remarked to Dr. Percy that so fine a tint had not been produced at Sèvres.

J. 17. Figure, 6½ inches high; youth hiding his face with garland of flowers painted and gilt. "No. 123" scratched in the paste.

J. 18. Figure, 7½ inches high; female playing on a triangle, painted and gilt and mounted on a pierced scroll-work base. Marked in blue under the glaze with two crossed swords, and "No. 311" scratched in paste.

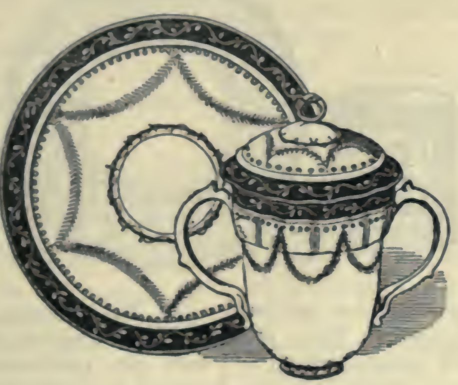
J. 19. } Pair of Ornaments, 8½
J. 20. } inches high, each representing a vase of flowers delicately modelled and coloured; the bases surrounded by rustic work touched with gilding; traces of a thumb-printed red mark.

J. 21. Ornament in form of peacock with raised flowers, painted and gilt. Mark thumb-printed in red, a crown and D.

J. 22. } Pair of Cornucopiæ,
J. 23. } green and gold, terminating in gilt rams' heads, and filled with flowers modelled in high relief, and coloured. Mark thumb-printed in red, a crown and D.

J. 24. Two-handled covered Cup and Saucer (fig. 143), ornamented with blue and gold border and simple festoons in pink. Early crown-Derby mark in puce, with jewelled crown.

Fig. 143.



J. 25. Cup and Saucer, with fluted body and gilt floral border. Early Crown-Derby mark in puce.
Presented by John Haslem, Esq., 1871.

J. 26. Cup and Saucer, ribbed and fluted body, painted and gilt with sprigs of flowers and running floral border. Early Crown-Derby mark in puce, and number 111.

J. 27. Saucer, painted with border of flowers and birds; gilt centre and rim. Crown-Derby mark in vermilion.

J. 28. Butter-boat in form of swan. Crown-Derby mark in vermilion.

J. 29. Vase, blue fluted body with gilt hoops, and raised flowers and swans at base, painted and gilt; unmarked.

J. 30. Two-handled Vase, 12 inches high, ornamented with gilt scroll-work and painted with birds and river scene. Mark printed in red, "BLOOR, DERBY," in circle surrounding a crown.

J. 31. Two-handled Basket, gilt edged, with diamond-pierced sides painted in red and black. Crown-Derby mark in vermilion.

J. 32. Two-handled Basket, with gilt diamond-pierced sides, the handles ornamented with raised flowers of red may. Mark thumb-printed in red, a crown and 𝕯.

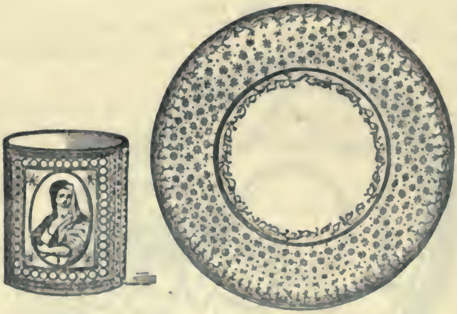
J. 33. Two-handled Cup and Saucer, richly gilt with initial ℛ, in oval medallion, surmounted by a coronet. Early Crown-Derby mark in puce.

This piece was purchased at the sale on the death of the late Marquess of Hastings in 1869. It was made for his grandfather, Earl Rawdon, whose initial it bears.

J. 34. Two-handled Cup and Saucer, ornamented with broad canary-yellow band with blue chevron border and gilt wreath. Early Crown-Derby mark in puce, and number 125.

J. 35. Mug and Saucer (fig. 144); white ground sprinkled with gold stars, painted by Banford with female portrait in oval medallion, with blue and gold border in square frame, enamelled with pearls on gilt ground. Early Crown-Derby mark in puce and number 239.

Fig. 144.



J. 36. Mug and Saucer, painted with flowers springing from the base of cup, and radiating from a green central disc in saucer. Crown-Derby mark in red.

J. 37. Cup and Saucer, of peculiar form, painted with flowers on white ground ornamented with gilt scroll-work. Mark thumb-printed in red, a crown and 𝕯.

J. 38. Cup and Saucer, painted and gilt with simple sprigs of flowers, known as pattern No. 129. Early Crown-Derby mark in puce and number 129.

J. 39. Cup and Sucer, painted with broad border of flowers. Unmarked.

J. 39*a*. Saucer, 6½ inches in diameter; deep blue border, enriched with gilt scroll-work; the centre painted and gilt with the arms of Sir George Edward Lambert Perrott, Bart. Crown-Derby mark in gold.

J. 40. Two-handled Cup and Saucer, of peculiar shape, painted and gilt in Japan style. Mark, thumb-printed in red, a crown and 𝕯.

J. 41. Pastile Burner, with blue and gold border and three gilt rams' heads; painted with birds by John Hancock, jun.; mounted on three feet with gilt scroll-work. Mark printed in red, "BLOOR, DERBY," in circle surrounding a crown.

Attention may be called to the short-fired mat-blue upon this piece, probably altered by exposure to the atmosphere.

J. 42. Vase, 9½ inches high, pale blue ground with flowers painted in panel. Unmarked.

J. 42*a*. Cup and Saucer, painted in blue with simple festoons. Crown-Derby mark in blue, and number 18.

J. 42*b*. Cup, spirally fluted, painted and gilt, with the No. 129 sprig. Early Crown-Derby mark in puce.

Presented by Mrs. Elizabeth Warne, 1874.

J. 42*c*. Tea-pot, spirally fluted, painted and gilt with same sprig as on last piece; impressed mark, TTU.

This may not be a Derby specimen, although corresponding in many of its characters with those of the preceding piece.

J. 43. Statuette of Diana in biscuit, 6½ inches high. Crown-Derby mark and *"No. 120"* scratched in paste.

J. 44. Statuette of Mars in biscuit, 6½ inches high. *"No. 114"* scratched in paste.

J. 45. Figure in biscuit, 10 inches high, a shepherd playing flute. Crown-Derby mark scratched, and a triangle.

The fingers of this figure are broken, and the flute is wanting.

J. 46. Group of two figures, painted and gilt; youth and maiden dancing. Marked with *"No. 17"* scratched in the paste.

J. 47. Group of two figures, painted and gilt; man and woman quarrelling. Marked in blue with crossed swords in imitation of Dresden.

J. 48. Group representing farmer's wife offering babe to the clergyman while the farmer holds the tythe pig. Unmarked.

J. 49. Figure of Falstaff, 11 inches high, painted and gilt. Unmarked.

J. 50. Figure of female feeding a cat, painted and gilt; the number 362 scratched in paste.

J. 51. Figure, 9¾ inches high, painted and gilt; youth, with raised flowers. Marked with crossed swords in blue.

J. 52. Figure, playing bagpipe, with dog, backed by flowers supporting two nozzles for candles. Marked with crossed swords in blue.

J. 53. Vase and Cover, 7½ inches high, formed of intertwined leaves, painted and gilt, and ornamented with flowers modelled in high relief. Unmarked.

J. 54. Vase of Flowers, 8 inches high, modelled in high relief and coloured. Traces of red mark.

J. 55. Ewer, 14 inches high, dark blue border with gilt flowers, painted with floral subjects in compartments and ornamented with beading and raised scroll-work in white and gold. Unmarked.

J. 56. Ewer, 9¾ inches high, pale blue body with landscape painted in oval medallion. Unmarked.

J. 57. Cup and Saucer, with landscapes in gilt edged medallions, painted by Zachariah Boreman; the cup with view near Crich, and saucer with view near the Trent, Derby. Crown-Derby mark in blue, and number 230.

J. 58. Cup and Saucer, with band of roses on black ground between gilt borders. Early Crown-Derby mark in puce.

J. 59. Cup and Saucer, painted in brown monochrome with landscape, with finger-post inscribed

To Dery" (*sic*). Marked in purple with small cross swords.

It is very doubtful whether this and the two following pieces can fairly be assigned to Derby.

J. 59*a*. Coffee-cup, in same style. Same mark.

J. 59*b*. Basin, in same style, with milestone inscribed "To London, 50 miles, A.D. 1820." Same mark.

J. 60. Cup and Saucer, painted and gilt with rich pattern known as the "Old Japan;" Crown-Derby mark in vermilion.

Much of the Derby China was decorated in the Japan style, especially during the later period of the old works. This specimen and the three following pieces have been selected by Mr. Haslem as illustrations of the richest "Derby Japans." Other examples of these favourite patterns are furnished by the specimens J. 40 and J. 93.

J. 60*a*. Cup and Saucer, painted and gilt with pattern known as the "Witches Japan;" Crown-Derby mark in red.

J. 60*b*. Cup and Saucer, painted and gilt with pattern known as the "Rock Japan;" Crown-Derby mark in red.

J. 60*c*. Cup and Saucer, painted and gilt with pattern known as the "Grecian Japan;" Crown-Derby mark in red.

J. 61. Mug, with fluted body, painted and gilt with simple sprigs; marked in red with a bow.

This mark is given by Mrs. Palliser in her "China Collector's Pocket Companion," p. 116, No. 43.

N.B.—The following specimens are placed at the back of the series of cases containing the Derby china (Nos. XV. to XIX.), and are arranged according to convenience rather than in chronological order.

J. 62. Plate, gilt edged, painted with group of fruit by Thomas Steele. Crown-Derby mark in vermilion.

J. 63. Plate, with blue and gold scroll work edge, painted with flowers both in centre and in compartments on the border. Crown-Derby mark in vermilion.

J. 64. Plate, with fluted border, centre beautifully painted (probably by Askew) with group of country children and sheep taking refuge beneath a tree during a thunderstorm; blue border with gilt ornaments in medallions. Early Crown-Derby mark in puce.

J. 65. Plate, with turquoise blue border with groups of flowers painted in six gilt-edged compartments; centre plain, with border of gilt festoons. Mark printed in red, crown and "DERBY" in riband.

J. 66. Plate, with birds painted in gilt-edged compartments on green ground, centre plain, with gilt edge of Greek fret pattern. Mark printed in red, crown and "DERBY" in ribband.

This is a pattern of a dessert service made for Her Majesty.

J. 67. Plate, with Cupid in centre, painted in pink camaieu by Askew, and border of pink scroll-work with brown festoons. Crown-Derby mark in puce.

J. 68. Plate, with deep marone border, centre decorated with raised flowers in gold and with gilt border of grass and flowers. Mark thumb-printed in red, crown and 𝔇.

J. 69. Plate, painted with group of fruit in centre, and deep blue border enriched with gilt margins of raised flowers and scroll-work. Mark thumb-printed in red, crown and 𝔇.

J. 70. Plate, painted in centre with flowers; bright blue border with gilt flowers in medallions connected by wreaths. Mark printed in red, crown and "DERBY" in ribband.

J. 71. **Dish**, with blue and gold border, painted in centre with flowers by William Billingsley. Early Crown-Derby mark in puce, and number 127.

Presented by John Haslem, Esq., of Derby.

J. 71*a*. **Compotier**, 9½ inches in diameter by 7½; diamond shaped with lobed edge; centre and border painted with flowers by William Billingsley. Early Crown-Derby mark in puce, and number 53.

Presented by John Haslem, Esq.

J. 72. **Compotier**, broadly heart-shaped, 9 ins. by 7 ins.; painted with bouquets of flowers in centre and in four compartments formed by horse-shoe ornaments with feather-edge in blue. The letter *N* scratched in the paste, and the mark *D* surrounded by a crown pencilled in pale slaty blue.

This is undoubtedly an early piece. Mr. W. Bemrose, jun., has identified the painting on several pieces, bearing similar marks, as that of Edward Withers, who preceded Billingsley as principal flower painter at Derby.

J. 72*a*. **Plate**, painted in similar style to the preceding piece, Crown-Derby mark in puce.

J. 73. **Plate**, painted with small roses, with blue and gold border. Early Crown-Derby mark in puce.

J. 73*a*. **Plate**, painted with flowers; border divided into three compartments by blue and gold horse-shoe ornaments with feather edge. Crown-Derby mark in red.

J. 74. **Plate**, gilt-edged, painted with flowers. Unmarked.

J. 75. **Plate**, painted with scroll-work in red and blue, and gilt; the pattern known as "Mary's Meadows." Crown-Derby mark in vermilion.

J. 76. **Plate**, painted with simple flowers and border of blue and white chequer pattern with gilt edge. Crown-Derby mark in red.

J. 77. **Plate**, painted with conventional foliage known as the Greek Japan pattern, in green, red, and gold. Mark thumb-printed in red, crown and D.

J. 78. **Small Dish**, gilt edged, painted with yellow American butterwort. Crown-Derby mark in red, and name of the flower.

J. 79. **Compotier**, with fluted border and gilt edge, painted in centre with a double China-aster. Crown-Derby mark in vermilion, and name of the flower also in red.

J. 80. **Heart-shaped Dish**, painted in green and black with flowers in centre and radiating border. Mark, the letter *D* surmounted by a crown, in green.

This is a very early mark of the first Duesbury period, end is rarely executed in this colour.

J. 81. **Four-lobed Dish**, with gilt edge and broad canary-yellow border. Crown-Derby mark in purple.

J. 82. **Rectangular Plaque** (8″ × 6″), painted with group of flowers. Initials scratched in the paste, "J. P."

J. 83. **Octagonal Plaque** (9″ × 7½″), painted with eight butterflies, and signed *"J. Caulton, 1805."*

J. 84. **Oval Plaque** (greater diameter, 9¼″, smaller diameter, 7″), painted by Mr. John Haslem with cavalier and lady, after Bonnington; richly gilt border on blue ground. Marked in blue with crossed swords.

J. 85. **Oval Plaque**, same size and style as last, painted by Mr.

Haslem with an oriental lady attended by female mucisian and black servant. Marked in blue with crossed swords.

J. 86. Rectangular Tray, ($9\frac{1}{2}'' \times 7\frac{1}{4}''$), centre painted by Mr. John Haslem in imitation of a cameo with Cupid on a lion; border pierced and gilt. Mark thumb-printed in red, crown and 𝔇.

J. 87. Dish, painted with flowers, and blue and gold border with pink festoons. Marked in blue with D, surmounted by a crown.

This is a very early piece, of the period of the first William Duesbury.

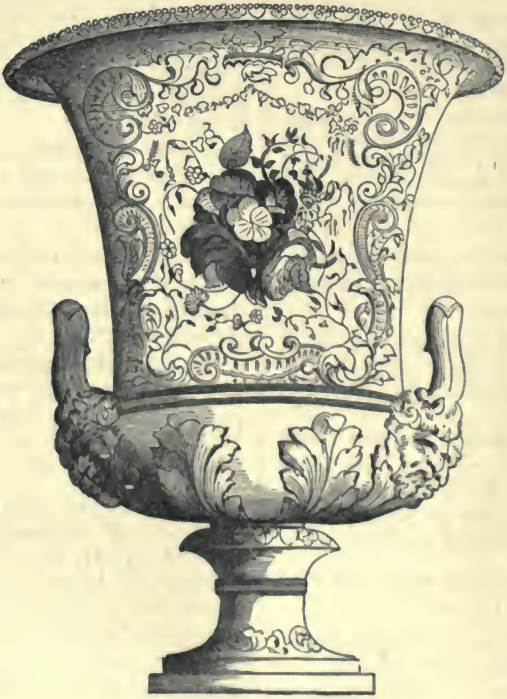
J. 88. Plate, with gilt gadroon edge, border of birds and forget-me-not, painted by Moses Webster, and centre with conventional five-leaved ornament in gold. Mark printed in red, "BLOOR, DERBY," in circle surrounding crown.

J. 89. Plate, with deep blue border enriched with gilt scroll-work; centre painted with view near Derby. Mark printed in red, "BLOOR, DERBY," in circle surrounding a crown.

J. 90. Plate, with three groups of flowers painted on border of pressed diaper pattern with gilt edge; centre plain. Mark printed in red, "BLOOR, DERBY," in circle surrounding a crown.

J. 91. Double-handled Tureen, Cover, and Stand, painted with flowers by William Pegg, the Quaker; inscribed inside with names of the subjects in blue; on tureen "*Eastern Poppy*" and

Fig. 145.



"*Various Tulips;*" on cover "*Large Double China Aster,*" "*Cordifolio Geranium,*" and "*Terebinthinum Geranium;*" and on stand "*Sweet Pea*" and "*Nasturtium.*" Crown-Derby mark in blue.

This piece, on account of its size, stands outside on the top of Case XIX.

J. 91*a*. Dinner Plate, 9½ inches in diameter; painted in blue with simple flowers known as the "Chantilly pattern;" unmarked.

Presented by John Haslem, Esq.

The Chantilly was the commonest of the old Derby patterns, and was generally executed in blue, although it is sometimes found in green and pink, and occasionally edged in gold. This pattern stands as No. 1 in the old Derby pattern-books.

J. 91*b*. Dish, two-handled, in earthenware, printed with flowers and scroll-work under the glaze, touched by hand with red, yellow, and gold; marked in blue under the glaze with Chinese square mark and the word DERBY.

This may be a piece of Staffordshire earthenware, the Derby mark having reference to the pattern.

J. 92. Large Vase (fig. 145), 17½ inches high, of the form known at the works as the "King's Vase;" with two gilt handles terminating in satyr masks; dark blue ground richly gilt and painted with flowers in a panel on one side, and with birds on the other. Unmarked.

This specimen is placed on the top shelf of Wall Case XXXV.

J. 93. Large Bottle, 17½ inches high, painted and gilt in oriental style with the "Exeter Japan" pattern; unmarked.

This bottle stands on the top shelf of Wall Case XXXVI.

Pinxton Porcelain.

[Wall case XIX.; bottom shelf.]

A manufactory of porcelain was established at Pinxton, near Alfreton, in Derbyshire, about 1795, by Mr. John Coke, who secured the co-operation of William Billingsley, the flower painter from the Derby works. Under Billingsley, who was not only a good artist but a practical potter, a fine transparent paste was produced, greatly resembling that which was afterwards made at Nant-garw. It is probable that Billingsley did not remain at Pinxton more than four or five years, and that he took with him his receipts for the body and glaze, as the porcelain subsequently made was of an inferior quality. After Billingsley left, the works were conducted for some time by Mr. Coke alone, and afterwards passed into the hands of Mr. Cutts, a painter, who subsequently settled in Staffordshire. The Pinxton works were closed about 1812, but their site is still known as "Factory Square" and "China House Square." It is believed that generally no mark was used at Pinxton, but a cursive 𝒫 is sometimes found.*

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* For much of the information respecting the Pinxton works we are indebted to Mr. John Haslem, of Derby.

J. 94. Plate, 7½ inches in diameter, in Pinxton porcelain, edged in blue and decorated with the simple "French sprig." Unmarked.

Presented by John Haslem, Esq.

This piece shows well the character of the ware produced at the Pinxton works under the management of Billingsley. The translucent vitreous body resembles that subsequently made by him at Nantgarw and Coalport. After Billingsley left Pinxton, a much coarser variety of porcelain was manufactured, of which the succeeding specimen is a fair example. The simple sprig painted upon the present piece was a favourite pattern at Pinxton, and resembled the design known as "No. 129" on the Derby china.

J. 95. Dessert Dish, four lobed, with vermilion border and green and gold festoons; centre painted with English landscape. Unmarked.

This dish must be referred to the period subsequent to Billingsley's retirement from Pinxton. It belonged to the late Rev. R. H. Frazell, rector of South Normanton, two miles from Pinxton, and was purchased at the sale at the rectory in 1869. Mr. Frazell obtained it from the late Rev. Mr. Williams, rector of Pinxton, whose wife was a daughter of Mr. John Coke, previously mentioned as the chief proprietor of the old Pinxton works.

J. 96. Mug and Saucer, with canary-yellow ground, ornamented with festoons and scrolls, pencilled in brown, and with Derbyshire landscapes painted in circular gilt-edged medallions; the mug with a view near Ingleby, and saucer with scene near Morley. Both pieces bear on the back the names of the places written in red, and are marked in red with a script 𝒫 and the number 121.

J. 97. Cup and Saucer, blue edged, and painted with simple floral festoons in green, yellow, and pink.

Presented by John Hawkins, Esq., 1875.

J. 98. Cup, chalice-shaped, 8 inches high and 4½ ins. in diameter; white porcelain, blue edged, painted with the Pinxton sprig.

Presented by John Hawkins, Esq., 1875.

Plymouth Porcelain, &c.

[Wall Cases XX. and XXI.]

It has been already stated (p. 15) that William Cookworthy, of Plymouth, had been engaged in experimenting on Cornish kaolin and porcelain-granite prior to 1758, when Borlase published his Natural History of Cornwall. Cookworthy, who was a member of the Society of Friends, and in the latter part of his life an eminent minister of that society, was born at Kingsbridge, South Devon, in 1704. In early life he and his brother Jacob were chemists and druggists in Nut Street, Plymouth, and William seems to have acquired considerable reputation for his chemical knowledge. It was this knowledge which appears to have induced him to direct his attention to the manufacture of porcelain, especially after the Père d'Entrecolles, who in 1712 resided at King-te-chin, a famous locality for porcelain works in China, had made known the materials employed, specimens of which had been sent to Paris in 1727–1729.

In a letter to Mr. Hingston, of Penryn, in Cornwall, dated 30th May 1745, Cookworthy mentions that a person from Virginia had discovered both kaolin and petuntse there, and had made from these materials certain specimens of porcelain, which he showed to Cookworthy. Whatever the value of the information may have been, the letter shows that Cookworthy had his attention directed to the materials for the manufacture of porcelain at that time.*

Mr. Prideaux infers that the discovery of the kaolin and porcelain-granite of Cornwall may have taken place about 1755.† Cookworthy had evidently searched the country in different directions, with the view of discovering these materials, for Borlase mentions his researches in the parish of Breage, and Mr. Prideaux quotes information received from Mr. Martin, of the St. Austel Blowing House, to the effect that Cookworthy first discovered porcelain-granite in the tower of St. Columb church which was built of that granite from St. Stephens. Having discovered the necessary raw materials in various parts of Cornwall and Devon but especially at Tregonning Hill, near Breage; Cookworthy, in conjunction with Lord Camelford,‡ established works at Plymouth for the manufacture of porcelain of hard paste, and in 1768 took out a patent for the manufacture.§

The porcelain is described as "composed of moorstone or growan and growan clay," that is, of porcelain-granite and china-clay, the stone giving the ware "transparence and mellowness," and the clay imparting "whiteness and infusibility." At the date of this patent, Cookworthy, who is described as a man of considerable energy, possessing an ardent desire for the advancement of knowledge, was in his sixty-fifth year.

The porcelain works were carried on at Coxside, Plymouth, and the buildings are still existing. For the decoration of the ware, Cookworthy engaged an excellent painter from Sèvres, named Soqui, Lequoi, or Le Quoi.‖ From fifty to sixty people were engaged there; and the demand for the blue and white porcelain is said to have been considerable. The fuel seems to have been chiefly wood.¶

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* The following is an abstract from this letter:—

"I had lately with me the person who has discovered the *China-earth.* He had with "him several samples of the china-ware, which I think were equal to the Asiatic. It was "found on the back of *Virgina*, where he was in quest of mines; and having read Du "Halde, he discovered both the *petunze* and *kaolin*. It is this latter earth which he "says, is essential to the success of the manufacture. He is gone for a cargo of it, having "bought from the Indians the whole country where it rises. They can import it for 13*l.* "per ton; and by that means afford their china as cheap as common stoneware; but they "intend only to go about 30 per cent. under the company." He then proceeds to express no very high opinion of this person, and it will be observed that "samples of the ware" were shown, while no mention is made of actual specimens of kaolin and petuntse.

† "Relics of William Cookworthy," 1853, p. 4.

‡ The following letter from Lord Camelford to Mr. Polwhele (History of Cornwall), dated Boconnoc, November 30, 1790, is important on this subject:—"With regard to the "porcelain manufactory that was attempted to be established some time ago, and which "was afterwards transferred to Bristol, it was undertaken by Mr. Cookworthy, upon a "friend of his having discovered on an estate of mine in the parish of St. Stephens a "certain white saponaceous clay, and close by it a species of granite or moorstone, white "with greenish spots, which he immediately perceived to be the two materials described "by the missionary Père d'Entrecolles, as the constituent parts of the Chinese porcelain, "the one giving whiteness and body to the paste, the other vitrification and transparency. "The difficulties found in proportioning properly these materials, so as to give exactly "the necessary degree of vitrification, and no more, and other niceties with regard to the "manipulation, discouraged us from proceeding in this concern, after we had procured a "patent for the use of our materials, and expended on it between two and three thousand "pounds. We then sold our interest to Mr. Champion, of Bristol."

§ Specifications of Patents, No. 898, March 17, 1768.

‖ *See* Owen's "Two Centuries of Ceramic Art in Bristol," p. 89.

¶ Burt's "Review of Plymouth" (1816), as quoted by Prideaux in his "Relics of Cookworthy," p. 5.

As the works at Plymouth did not prove remunerative nor were altogether successful as a manufacture, they were closed at the end of 1771, and the manufacture was carried on in Bristol, where it had been established by Richard Champion in 1768, under the firm of Cookworthy & Co. Richard Champion finally purchased all interest in the Plymouth patent in October 1773.

Mr. Cookworthy, after closing his connexion with the manufacture of porcelain, appears to have devoted his remaining years until his death, which occurred at Plymouth in 1780 at the age of 76, to his duties as a minister in the Society of Friends.

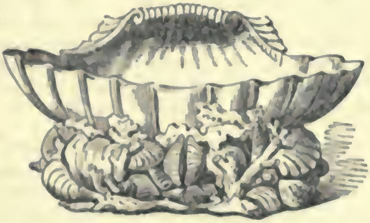
Undoubted specimens of Plymouth porcelain have become extremely scarce. The mark, when one was used, is ♃, the alchemic symbol for tin (Jupiter), and probably adopted in allusion to the stanniferous character of that portion of country where the raw materials were obtained.

K. 1. } K. 2. } Pair of Salt-cellars, each in form of a valve of *Tridacna*, mounted on a base of coral and shells (fig. 146). Plain white body, with cloudy glaze. Unmarked.

Presented by Mr. Williams, of Plymouth.

These salt-cellars are known to have been originally in the possession of a person who was directly connected with the old Plymouth works, from whom they passed to the donor, who is a member of the same family. Similar forms are believed to have been made at Bristol and at Bow.

Fig. 146.



K. 3. } K. 4. } Pair of Female Figures, 13 inches high, representing Europe and Asia. Plain white body, on which the peculiar glaze of some of the Plymouth porcelain is well seen.

Presented by Mrs. General Nelson, of Plymouth.

The statuette representing Asia is almost identical with that figured in Mr. Hugh Owen's "Two Centuries of Ceramic Art in Bristol," Pl. XII.

K. 5. Figure, 6 inches high, representing Winter. A boy wrapping a mantle around him. Plain white glazed body.

Presented by Montagu E. N. Parker, Esq., 1851.

K. 6. Figure, 6 inches high. Boy seated on a cask and holding a mug. Painted and gilt, and mounted on base of scroll-work in green and gold. Broken and repaired.

Presented by Earl Morley.

K. 7. Milk Jug, painted and gilt with quails, or partridges, and conventional flowers. Unmarked.

The pattern of this piece was often employed at Bow, and may also be seen on specimens of Worcester china.

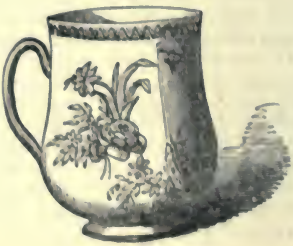
K. 8. Mug, with gilt border, painted with exotic birds and trees. Plymouth mark in gold.

Presented by Earl Morley.

K. 9. Mug (fig. 147), with gilt chevron border, painted with flowers. Plymouth mark in brown.

Presented by Earl Morley.

Fig. 147.



K. 10. **Sauce-boat**, small, with fluted body; ornamented in blue under the glaze with conventional figures in oriental style; workman's mark in blue, a small cross.

Presented by H. H. Treby, Esq., of Plymouth.

K. 11. **Sauce-boat**, with pressed scroll-work pattern, painted with flowers. Unmarked.

Presented by W. Cookworthy, Esq.

K. 12. **Sauce-boat**, in same style as last piece, painted with a cock, the crest of the Cookworthy family. Unmarked.

Presented by W. Cookworthy, Esq.

K. 13. } **Pair of Sauce-Boats**,
K. 14. } with embossed ornament, printed with flowers in blue under the glaze. Unmarked.

Presented by the late Sir William Snow Harris, of Plymouth.

K. 15. **Sauce-boat**, printed in blue with a boy on a buffalo in Chinese style. Plymouth mark in relief, and initials, I. H.

This piece is doubtfully attributed to the Plymouth factory, the mark being indistinct.

K. 16. **Saucer**, painted in Chinese style in dark blue under the glaze. Plymouth mark in blue.

Presented by Montague E. N. Parker, Esq., 1851.

K. 17. **Tea-cup**, painted with flowers in red, yellow, and green. Unmarked.

K. 18. **Tea-cup**, painted with conventional foliage in deep blackish blue under the glaze. Plymouth mark in dark blue under the glaze.

K. 19. **Two-handled Sugar-basin**, in earthenware coated with a dense white stanniferous enamel, similar to that on delft ware; painted with flowers in green, blue, yellow, and purple.

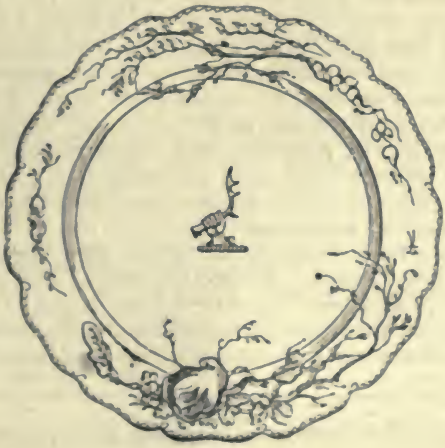
Presented by Montague E. N. Parker, Esq., 1851.

It appears that earthenware or delft must at the same period have been manufactured at Plymouth. Not only have the specimens here exhibited been regarded by their former owners as Plymouth ware, but we learn from Mr. Hainsselin, of Plymouth (MS.), that an earthenware figure of St. George and the Dragon is in the possession of Mr. Skardon, and that this piece formerly belonged to the present owner's grandfather, who worked in the pottery.

K. 20. **Plate** in earthenware, coated with thick white stanniferous enamel, painted in green of two tints with flowers on the border and with crest of the Parker family in the centre (fig. 148). Unmarked.

Presented by Montague E. Parker, Esq.

Fig. 148.



This piece is believed to have been made locally for the donor's family, and therefore furnishes further evidence of the manufacture of delft in Devonshire. The donor was formerly M.P. for South Devon.

K. 21. PLATE in earthenware, coated with opaque white tin-enamel, resembling the glaze of delft ware; painted with flowers in green of two tints, in similar style to that of the preceding piece; border ornamented with pierced work, and brown edge.

Presented by Mrs. Elizabeth Warne, of Yeovil, 1874.

This piece is placed in this series in consequence of its general similarity to the preceding specimen.

BRISTOL PORCELAIN.*

It has been asserted that the manufacture of porcelain in Bristol only commenced on the transfer of Cookworthy's patent to Champion in 1773; but, independent of the fact that the latter began to make porcelain in 1768, as soon as the patent in which he had an interest was obtained, there was a still earlier attempt, which is referred to in Champion's correspondence. Mr. Caleb Lloyd, residing at Charlestown, S. Carolina, in November 1765, sent a box of kaolin to Bristol, to be forwarded to Lord Hyndford who was a relative of both Champion and Lloyd. The result of the experiments on it was related by Champion to Lord Hyndford, under date of 28th February 1766.

"My Lord,—The difficulties which I have had in the trial of the South "Carolina clay, prevented my acknowledging the receipt of a letter which "your Lordship did me the honour to send me. Mr. Goldney declined it "for want of conveniences, but expressed his obligations for your Lordship's "obliging message. *I therefore had it tried at a manufactory set up here "some time ago, on the principle of the Chinese porcelain; but not being "successful is given up.* The porcelain of the Chinese is composed of the "kaolin (or clay) and the petuntse (a stone) both found generally together. "The proprietors of the work *in Bristol* imagined they had discovered in "Cornwall all the materials similar to the Chinese; but though they "burnt the body part tolerably well, yet there were impurities in the glaze "or stone, which were insurmountable, even in the greatest fire they could "give it and which was equal to a glass-house heat. The experiment of "the Carolina clay promised well as far as the clay would permit, and was "found to be much purer than their own, but there not being any stone to "try with it, a complete trial could not be made. I have sent some to "Worcester, but this and all the English porcelains being composed of frits, "there is no probability of success."

At what period these experimental works were begun and by whom conducted there is no record. Richard Champion began to make porcelain in 1768, and in the Worcester Journal of 22nd March 1770 advertised for workmen:—"China ware painters wanted for the Plymouth New Invented "Porcelain Manufactory. A number of sober, ingenious artists, capable of

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* For these notes we are indebted to Mr. Hugh Owen.

"painting on enamel or blue, may hear of constant employment by sending "their proposals to Thomas Frank, in Castle Street, Bristol."*

The exact locality of the china works before 1771 has not been traced. According to the poor rate, March to September 1770, the premises, afterwards occupied as a china factory, and now known as No. 15 Castle Green, were "void." The next rate is missing; but from September 1771 to September 1773, William Cookworthy & Co. were rated as occupiers.

In October 1773, the patent right passed into Champion's sole name, and from September 1773 to September 1780, the premises were rated to Richard Champion & Co.; in 1871, to Richard Champion only, and then passed into the occupation of J. Carey, pipe maker, from March 1782. It will be observed that the Bristol china works were carried on for many years longer than the period hitherto ascribed to them.

Simeon Shaw † gives a very circumstantial account of the transfer of Champion's patent, by sale to a company of Staffordshire potters in 1777, but the date is erroneous. Sarah Champion, sister to the potter who kept an elaborate journal as well as copies of her letters, under the date of 14th January 1781 wrote:—"My brother being obliged to expend a month or "two in Staffordshire on account of the china manufactory;" and again on the 9th June following:—"my brother, who with my sister C. returned "the 4th of this month from London, on their way from Staffordshire ". . . . . intending for some time to come to make Newcastle, in "Staffordshire, the place of their residence; he being in a way of profitably "disposing of the china manufactory, reserving a part to himself." This agrees with the records of the Bristol poor rates, wherein the china manufactory is assessed to R. Champion for the rate made in advance in September 1781.‡

Champion had a warehouse in London, at No. 17, Salisbury Court, Fleet Street, for the sale of his porcelain, and the agent was Mr. Joseph Hancock. In February 1776, Mr. Joseph Hickey wrote to Champion:—"I

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* A reduced facsimile of Champion's enamelling kiln with memoranda in his autograph, dated October 1770, will be found at p. 19 of Mr. Hugh Owen's "Two Centuries of Ceramic Art in Bristol."

† In 1777 he sold the patent to a company in Staffordshire. Mr. Samuel Hollins, red china potter of Shelton; Anthony Keeling, son-in-law of Enoch Booth, potter, Tunstall; John Turner, Lane End; Jacob Warburton, son of Willliam Warburton of Hot Lane; William Clowes, potter of Pert Hill, and Charles Bagnall, potter, Shelton. After this agreement, Mr. Champion directed the processes of manufacture for the Company, at the manufactory of Mr. Anthony Keeling, at Tunstall; but when that gentleman (Mr. Champion) removed to London, in 1772, a disagreement ensued among the partners; Mr. Keeling and Mr. John Turner withdrew, and they who continued together engaged as managing partner, Mr. John Daniel, son of the person who introduced plaster moulds, and settled the manufactory at the New Hall, Shelton, only a short time previously erected by Mr. Whitehead of the Old Hall, Hanley, on which account the porcelain had the appellation of *New Hall China*. Mr. Joseph Warburton was the principal gentleman to whom the potteries were indebted for this spirited introduction of the porcelain manufactory.—"Shaw's History of the Staffordshire Potteries, Hanley, 1829."

‡ During Champion's career as a china potter, he took 20 apprentices; the first was Henry Bone, afterwards an R.A. and miniature enameller to the Royal Family, who was indentured for seven years on the 20th January 1772, the last was William Lyne whose indentures date from July 1778. It has been frequently asserted that Bone was apprenticed to Cookworthy at Plymouth, but the official registration of his indenture is found in the Book of Apprentices of the Corporation of Bristol as stated.

" congratulate you upon the beautiful appearance of our warehouse, and " the prospects of its success. Edmund is delighted with it. Young " Richard made money of his and your friends very [——·——] yesterday." Mr. Joseph Hickey, according to *Kent's Directory* for that year, was an attorney, of No. 31, St. Alban's Street, Pall Mall. "Edmund" and "young Richard" were Edmund Burke and his son. The use of the possessive pronoun by Mr. Hickey in describing the appearance of the warehouse, with the familar way in which he couples Mr. Burke's name with his own, leads very naturally to the hypothesis, that these gentlemen had more than an ordinary interest in the success anticipated. The "Bristol Porcelain Warehouse" was open until 1782, and possibly later; but the series of Directories in the British Museum is imperfect, and the name is not to be found in 1789.

The Plymouth works having been discontinued for the reasons given in Lord Camelford's letter to Mr. Polwhele (given *ante* p. 197), Champion entered into negociations for the purchase of the entire interest in the patent, and the terms were long a subject of debate by correspondence. In October 1773, Sarah Champion, writing to a relative, said that a satisfactory arrangement had been made at a personal interview between Cookworthy and her brother.*

Although the patent was vested solely in Richard Champion in October 1773, as proved by the names of Cookworthy & Co. being replaced in the poor rate of September 1773, by those of Champion & Co., the deed confirming the transfer, was not executed until the 6th May 1774, Cookworthy having been prevented from visiting Bristol by domestic troubles during the interval. Mr. Prideaux in his "Relics of Cookworthy," quotes a letter to Ann Cookworthy, Plymouth, dated "Bristol, 4th day, 10 o'clock," (4th May 1774 by Sarah Champion's Journal,) in which Cookworthy says:— " I have not the least reason to complain of R. Champion's behaviour " . . . . and on the whole my time hath been spent agreeably amongst " them, all things considered: for considering my attention to china wares, " the closing of my business with R. Champion, the settling the lover's " matters,† which were in a much worse situation than we imagined; all " this and the attending meetings, have made the last month the busiest " one to me that I have known for many years," &c.

Champion having in the same year been mainly instrumental in the return of Edmund Burke as one of the members for Bristol, determined to petition Parliament for an Act to extend the period of his letters patent for 14 years beyond the original term and Burke's energetic support justified the determination. After a long and fierce struggle with Wedgwood, who used his powerful pen and very extensive influence with his characteristic energy in opposing the Bill, it passed the Commons by a majority of 49, without amendment, although several new clauses were proposed. On one of these clauses, intended to leave the original letters patent open to litigation, the House divided, but it was negatived by a majority of 47. Wedgwood lost the opportunity of giving his powerful evidence against the Bill, owing to having distributed to the members a memorial containing arguments against the merits of Champion's petition. The House took offence at this, and by motion, without a division, refused to receive his evidence or that of his partner Mr. Thomas Bentley. The struggle was renewed again in the House of Lords with even more bitterness than in the lower House. Wedgwood published several elaborate and well-written arguments against the Bill, and, supported by Earl Gower, succeeded in getting a clause inserted, allowing to the trade the free use of kaolin in opaque ware; a most valuable concession considering that Champion himself was bound by deed to pay 100 per cent. more for that raw material than his opponents. An interesting incident occurred in the Lords. One of Champion's witnesses had left London for Bristol without permission, and had to be recalled by express. Wedgwood and his party calculated that this would delay the Bill beyond the end of the session, for which the day was fixed and named, but the witness having been recalled by an express which travelled the 240 miles in 27 hours, Lord North, after some conversation with Lord Mansfield, announced that the King would not be at the House until a day later than before understood, and the Bill was sent back to the Commons in time to have the amendments agreed to it, and it received the Royal Assent in due course. During the contest in committee of the Lords, Mr. Wedgwood urged the insertion of a clause to admit the free use of the raw materials; this was opposed by Champion, who offered instead to register a specification, which was accepted, and rendered compulsory by the Act.* This specification was drawn up and lodged in the hands of the Lord Chancellor before the Bill passed, and was enrolled on the 15th September 1775. In this specification it is said that " without taking away the ware the distinguishing " appearance and property of Dresden and oriental porcelains," the proportions of the ingredients may vary from one part of growan clay (china clay or kaolin) to four parts of growan stone (china stone or petuntse) to 16 of clay to 1 of stone. The raw materials of the glaze are said to differ in number and proportions according to will, but they may consist of " the " stone or gravel aforesaid, and the clay aforesaid, magnesia, nitre, lime, " gypsum, fusible spar, arsenic, lead, and tin ashes (oxide of tin)." In order to lessen the great risk incurred in firing porcelain of so hard a character, Champion when making his commoner ware, seems to have adopted the Chinese plan of glazing over the raw body and finishing with one firing only; and he specifies two glazes, the first a transparent one for this purpose, and the second, containing a large proportion of kaolin, which with arsenic and oxide of tin (tin ashes) would make the rich enamel glaze that forms the covering of his statuettes, which were biscuited in the usual way, as well as his finer ware.

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* "I am glad I have it in my power to add that the china business which brought " him (W. Cookworthy) to Bristol is settled. I hope satisfactorily to both parties, indeed " I had always hoped when they met it would be so. My brother often represented to " him the great injury he imagined would attend a tax for ever on a work, left it entirely " to himself to make his own terms to which he promised to abide, William Cookworthy " immediately determined that he would give up the perpetual claim, and fix it to 99 " years, the time of lease for the clay."—(*Correspondence of S. Champion.*) The terms were severe and oppressive as Champion was bound to pay a royalty to Cookworthy equal to the total cost of the raw materials procured from Cornish mines leased by Cookworthy.

† The projected marriage of Esther, Richard Champion's youngest sister with Philip Dabell Tuckett.

Professor Church thus describes the characteristic peculiarities of an example of Bristol porcelain :—

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* 15 Geo. III., chap. 52.

"*Paste.*—Colour, milk-white. *Fracture.*—Sub-conchoidal, slightly flaky; lustre of fractured surface, something between greasy and vitreous; under the microscope, somewhat hackly, apparently compact and homogeneous. *Glaze.*—Thin, slightly bubbled, and having the hardness of fused felspar—about 6 on the mineralogical scale. *Hardness of paste.*—Extraordinarily high; is just that of quartz: 7 on the mineralogical scale. *Specific gravity* of the fragment examined, including a small amount of gilding and a thin layer of glaze, as well as 90 or more per cent. of the paste itself = 2·37.

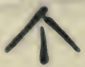
"The cause of the hardness and other fine qualities of Champion's porcelain is explained when we turned to its analysis. It is to the very high proportion of silica present in it that its density, hardness, and durability are chiefly due. The larger the proportion of silica present the higher the temperaure the paste will require and will bear in the kiln, and the more compact the resulting porcelain. A broken handle of a tea-cup, authenticated as Champion's manufacture, gave after the removal of the glaze, the following results as the mean of two careful analyses:—

Silica - - - -	62·92
Alumina - - - -	33·16
Lime - - - - -	1·28
Alkalies - - - -	2·64
	100·00

"It will be seen that the alkalies and lime of the Bristol porcelain do not together amount to 4 per cent. This is a remarkably small amount of fluxing or fusible ingredients. The average amount of alkaline oxides in fine oriental porcelain appears to be 6 per cent.,—in Dresden, 6·3 per cent.,—and in Sèvres, 7 per cent. It may be safely affirmed that few, if any, hard porcelains have ever been made with so little alkaline matter as this porcelain of Bristol. And when we come to soft English porcelains we often find no less than 33 per cent. of alkaline matters, bone, earth, and fluxing salts, and only 40 per cent. of silica, and 25 of alumina."

Champion left Bristol on the 5th November 1781 and up to the 8th April 1782, superintended the works of the china company to which his patent right had been transferred. On the 9th April Edmund Burke, who had accepted the office of Paymaster of the Forces, appointed his son Richard Burke and Richard Champion joint-deputy paymasters general; the latter with official apartments in Chelsea Hospital. On the 31st July the death of the Marquess of Rockingham brought a change of ministers, and Champion lost his appointment. He regained it on the 16th April 1783, under the famous Coalition Ministry, only to resign it finally on the 6th January 1784, when that administration collapsed. On the 7th October 1784 he left England for South Carolina where at a farm called Rocky-branch he carried on the usual business of a planter. He was appointed master in equity for the district of Camden; in those days embracing a large scope of country, and was elected a member of the Assembly. He died of fever on the 7th October 1791 (the seventh anniversary of the day on which he left England), and was buried in his family cemetery, situated just outside the town at Camden.

L. 1. Fruit Dish, 12 inches by 9 ins., lozenge shape with lobed sides, and gilt dentate edge; painted with flowers, detached and in boquets; the base strengthened with a waved truss, and marked in blue, thus :—



Presented by W. Cookworthy, Esq.

Mr. Hugh Owen refers to this piece as bearing "a peculiar mark, which not having been observed on any other piece, may be estimated rather as a workman's caprice than as a regular mark."—*Two Centuries of Ceramic Art in Bristol*, p. 240. The waved rib at the bottom was to give support to the piece when in the kiln, and prevent warping.

L. 2. Small Sugar-basin, with lobed border edged in brown; painted with festoons of flowers. Marked with cross in blueish slate-colour.

This specimen, and several others in the collection will serve to show the spiral ridges so well known to the collectors of Bristol porcelain. Mr. Hugh Owen says that "one of the distinguishing characteristics of Bristol porcelain, which also marks the Plymouth ware, but in a greater degree, is the series of spiral ridges, often to be observed on the surface of thrown ware when held in reflected light. The difficulty of preserving a uniform density in the clay of any vessel raised on the wheel by spiral action must be obvious. The hands of the workmen are dipped in water, from time to time, whilst raising a vessel on the potter's wheel, and thus certain portions of thrown ware acquire an unequal hygrometric condition. In the subsequent process of drying and firing, those parts that have imbibed the most moisture, shrink in proportion, more than the denser parts. As a natural consequence, the moister layers of the clay being in the direction of the throwing or spiral, the whole vessel, without any change of form, has a spiral action imparted to its molecules in the reverse direction to that given to them on the wheel."

L. 3. Plate, 9 inches in diameter, with moulded rim and gilt edge; the base strengthened with circular rib, and ornamented with gilt circle. Marked in blue with cross, and the number 10. Broken and rivetted.

L. 4. Cup, with brown edge, coarsely painted with flowers. Marked in blue with a cross, and the number 24.

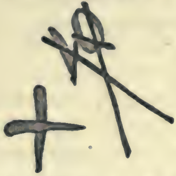
L. 5. Cup, with border of scroll-work and flowers in brown monochrome; unmarked.

L. 6. Cup and Saucer, gilt edged and painted with flowers. Marked with cross in blue.

L. 7. Tea-pot and Cover, with rustic handle and spout; gilt edged, and painted with flowers; the red of the flowers almost discharged; unmarked.

L. 8. Coffee-pot and Cover, 8 inches high; chocolate-brown edge, painted with flowers. Marked in blue with the Dresden cross-swords under the glaze, and the Bristol cross and number 10 over the glaze (fig. 149).

Fig. 149.



L. 9. Sauce-boat, with moulded rim and chocolate-brown edge; painted with flowers; some of the colours dull. Marked in blue with cross and number 10.

L. 10. Inkstand, with brown edge and ornamental border, painted with flowers in pale colours. Marked with cross in blue and figure 8 in pink.

[N.B. The following specimens are in Wall-case XXIII.]

L. 11. Two-handled Dish, Cover, and Stand, decorated with gilt edges, and painted in proper colours with laurels in borders and festoons pendent from gilt bands; the cover surmounted by a white rose. The dish and stand each marked in blue with cross and the figure 1.

The numbers accompanying the marks on Bristol porcelain are believed to refer to the painters. These numbers range from 1 to 24, but it is difficult to appropriate them to the several artists who used them. Mr. Hugh Owen believes, however, that No. 1 was used by Henry Bone, the celebrated enameller. He was born at Truro in 1755, and apprenticed to Richard Champion at the Bristol china works. "There "is no doubt," says Mr. Owen, "that the "best painting executed at Castle Green, "was from Bone's pencil."

L. 12. Cup and Saucer, decorated in the same style as the last piece, and probably belonging to the same service. Marked with the cross in blue.

Presented by Her Grace the Duchess of Northumberland.

L. 13. Cup and Saucer, gilt-edged, and painted with flowers in blue monochrome. Marked with cross in blue and figure 2 in gold.

It is believed that gilt figures refer to the gilders, not to the painters.

L. 14. Cup and Saucer, painted with detached roses, and with purple ribbons entwined round gilt bands. Unmarked, but characteristically Bristol in shape, paste, and decoration.

L. 15. Cup, edged in brown, and rather coarsely painted with flowers; red scroll running inside the rim. Marked with cross in blue.

L. 16. Saucer, gilt-edged and carefully painted with flowers in a large boquet and detached. Marked with cross in blue, and figure 2 in gold.

L. 17. Dish, circular, 8 inches in diameter; gilt-edged, with Chinese subject printed in pale blue under the glaze. Marked in blue under glaze with a blurred cross.

L. 18. Mug, with flowers printed in blue under the glaze. Marked with blue cross.

L. 19. Cup and Saucer, in fine porcelain, ornamented with gilt edge, and festoons painted in green; marked in blue with cross surmounted by the letter B.

Presented by A. Higgins, Esq.

It is believed that this piece is a modern imitation of old Bristol ware. Although the shape and style of decoration are characteristic of some old Bristol china, the paste is very different, and the mark has the appearance of being spurious.

Bristol Delft and Earthenware.

[Wall Cases XXI. to XXIII., bottom shelf.

accephe Art of Pottery in this city has claim to great antiquity. The
Burke or of Bristol Castle under Edward I. in his accounts, preserved in
with offi Roll for the twelfth year of that reign (1284) has an item—"*pro*
of the M*nda ad vasa fictilia facienda.*" Extensive works must have
Champion l the whole bank of the river from Bristol Bridge to Redcliffe
under the fa beyond history, as shard heaps are found wherever excava-
January 1784, made on that line. The earliest record that has been dis-
1784 he left Engster potter's name is in the register of the Society of
branch he carried Thomas Frank, gallipot-maker * is recorded as having
master in equity for7. The works situated on Redcliffe bank, were carried
large scope of coun the manufacture of Delft ware till 1777, when they
died of fever on the 7

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on which he left Engl critically examined a small gallipot of delftware found near
just outside the town a :—A buff coloured body nearly completly covered with a
body is hard, denser, and a trifle redder and darker in tint
L. 1. Fruit Dish, 1ch wares. The body, as exposed at the upper edge of this
9 ins., lozenge shape wf fluor spar, or 4 on the mineralogical scale; while the

were removed to No. 9, Water Lane, the premises occupied at this moment as the Bristol Pottery.

"Richard Frank & Son, earthen and stone pot works, are removed from Redcliffe Backs to Water Lane, where they continue the same business in all its branches."—*Felix Farley's Journal*, January 2, 1777.

On the 20th September 1784, Mr. Joseph Ring, who had married a daughter of Richard Frank, purchased the stock and plant at a valuation of 669*l.* 1*s.* 3½*d.*; of this the wheels, tools, and trade appliances (including an old iron pot in the yard) were valued at only 10*l.* 4*s.* 6*d.* Richard Frank died, aged 73, on the 3rd April 1785, and was interred on the burial ground of the Society of Friends at Redcliffe Pit.

In June 1786, Mr. Ring commenced his preparations for manufacturing Queen's-ware. Anthony Hassells, of Shelton, was engaged at a guinea a week, to assist him. Hassells had been in business, and Mr. Ring purchased his stock on hand, some one hundred and forty-eight dozens, and paid him 5*l.* 5*s.* for the cost of his journey to Bristol—3*l.* 14*s.* 6*d.* for the expenses of workmen who accompanied him—and 5*l.* 5*s.* for "moulds." In August 1786, he was fairly at work, as the purchase of materials shows—amongst other things, "ground flints" from Bell & Griffin, of Stone, Staffordshire; and 14 pounds of sopphora [zaffre] from John Salte, London. Mr. Ring advertised the establishment of the manufacture early in the next year:—

"BRISTOL POTTERY, TEMPLE BACK.—"Joseph Ring takes this opportunity to inform merchants and others that he has established a manufactory of the Queen's and other earthenware which he will sell on as low terms, wholesale and retail, as any of the best manufacturers in Staffordshire can render the same to Bristol."—*Bristol Gazette and Public Advertiser, for Thursday, January* 18*th*, 1787. *No.* 1010.*

On the 9th January 1788, Mr. Ring took Messrs. Taylor and Carter into partnership under the firm of Ring and Taylor, Mr. Carter being a sleeping partner, supplying 1,500*l.* of a capital of 4,500*l.* Mr. Ring was killed by the fall of a roof whilst superintending some alterations on the 5th of April 1788, and the business was continued with the widow as a partner under the firm of Ring, Taylor, and Carter. In 1797 printing on ware was first introduced at the Water Lane pottery and a painter apprehending that the new art would injure the trade of the enamellers, became despondent and committed suicide. His name was "J. Doe," and several pieces of ware painted and dated a few days before his death, "Sept. 1797," are still in existence, notably one in the possession of M. R. C. Ring, Bristol.

Ring's cream-ware is thin and well potted; the edges being remarkably sharp; and the fluted pieces very regular and well defined. It is generally yellower than either the Leeds or Wedgwood's cream-ware. Both these are coloured bodies, but Ring's has a white body, and the tint was obtained by means of a yellow glaze.

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body of the Dutch specimens with which it is compared, is less than 3—the hardness of calc spar. The glaze, or rather the enamel of this piece, is of a distinctly greenish blue tint, very uniform in texture and colour; and a trifle more opaque than the enamel of the Dutch examples, which are distinctly inferior in quality. The surface of the enamel is slightly iridescent from commencing decomposition, owing to a long contact with the soil.

* Miss Meteyard in her "Life of Wedgwood," vol. i. p. 242, mentions an advertisement in Aris's "Birmingham Gazette of 1758 for a "thrower of mottled and cloudy earthenware for the works at Bristol." As earthenware was not made in Bristol till 1787, it is probable that the date quoted may be a typographical error for 1788.

An agreement for a new partnership at the Bristol pottery was drawn up, dated 5th April 1813, between Henry Carter, John D. Pountney, and Joseph Ring, son of the late partner. Mr. Ring, however, died at the age of 28, on the day the deed is dated, without having executed it; and Mr. Carter only continued in the firm until 1816, when he retired, and was succeeded by Mr. Edward Allies. The business was then carried on under the firm of Pountney and Allies until the 28th March 1835, when Mr. Allies retired, and Mr. Pountney remained the sole proprietor. Finding the business beyond his powers, he took Mr. Gabriel Goldney into partnership, for seven years, from the 18th October 1836. At the expiration of this limited agreement, it was renewed for a like period.

Mr. Goldney retired at the expiration of his second agreement, in September 1850, and Mr. Pountney was again alone. He died at Clifton, in October 1852. The manufacture of earthenware is still carried on at the old premises, under the superintendence of Mr. Clowes.

There was another delft potter named Joseph Flower, whose ware was of excellent character. Many well-executed pieces, dated from 1742 to 1750, are still in the possession of a descendant, Mr. James Flower Fussel of Leigh, near Bristol. This delft is thin, neat in make, well potted and with a good glaze.

William Fifield, the Bristol enamel painter, who was born at Bath, in the year 1777, was apprenticed to a glass stainer, and, as we learn from his daughter, who is now living, worked at the enamel kiln of Water Lane pottery, for fifty years. He died in 1857. Fifield has been described as "one of the best of the Bristol china painters, who survived many years "the extinction of the manufacture." If the "manufacture" indicated is Champion's, a collation of the dates will show that Fifield was but three years old when the porcelain works became extinct. Several pieces of Fifield's work will be found in this collection.

Henry Clark, an artist of considerable ability, was originally apprenticed at the Water Lane pottery, and continued in the employ for nearly 50 years. He died about 1862. His best pieces were flowers and landscapes.

Richard Peake, a flower painter, worked at Water Lane from about 1850 to 1856.

One of the old Staffordshire family of potters, named Toft, was engaged for a short period about 1867.

Thomas Pardoe whose name will be found on some plates well painted with flowers, was a glass stainer and enameller, who lived from 1809 to 1820 (with some short intermission) in Bristol, and painted on his own account china purchased in the white from the Staffordshire works.*

L. 20. PLATE (fig. 150), 8¾ inches in diameter, in delft ware, painted in blue with Chinese subject, and marked in blue as in fig. 151.

Presented by William Edkins, Esq., of Bristol.

This plate was painted by Michael Edkins, the grandfather of the donor, at Richard Frank's factory on Redcliffe Back. The initials on the reverse, M. & B. E., are those of Michael and Betty Edkins.

L. 21. PINT MUG, in coarse earthenware with white glaze mottled blue. Marked with cross in deep blue under the glaze.

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* The preceding notes on the Bristol potteries were kindly supplied by Mr. Hugh Owen.

Fig. 150.*

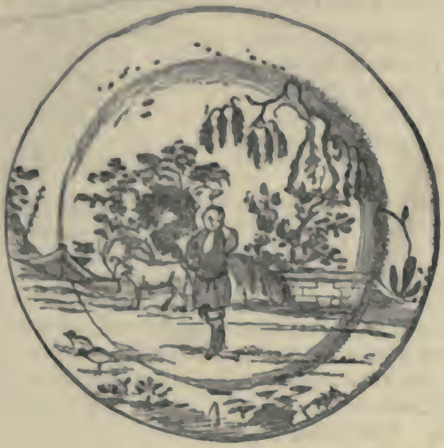
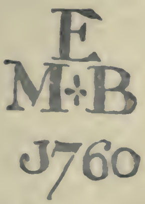


Fig. 151.



L. 22. **Sugar-basin** and **Cover**, in Ring's cream-coloured earthenware, with twisted handles, resembling those on Leeds pottery; coarsely painted with flowers.

L. 23. **Coffee-pot**, 10 inches high, in cream-coloured ware with twisted handles; painted with flowers in purple, the ornaments at base of handles being touched with green; the cover stamped inside with letters HM.

L. 24. **Tea Canister**, in cream-coloured ware, painted with floral festoons, partly worn off.

L. 25. **Tea Canister**, in cream-coloured ware, coarsely painted in black and flesh-tints with Abraham about to sacrifice Isaac, and inscribed, "genesis: 22."

L. 26. **Large Mug**, in cream-coloured ware, with simple border of quatrefoils, alternately blue and brown, running round the rim.

L. 27. **Flower-pot**, in white glazed earthenware, with applied ring handles; printed on each side in pale brown and purple under the glaze, with monument inscribed "Peace of Europe signed at Paris, May 30, 1814," supported by female figures emblematic of Peace and Plenty, and backed by the united flags. At bottom a distant view of Bristol, with the Temple Church and pot works in the rear, inscribed "Bristol Pottery."

L. 28. **Dish**, in white glazed earthenware, printed in blue under the glaze, with broad border of flowers surrounding coat of arms, with motto, "Virtute et Industria;" mark on reverse printed in blue in an oval under glaze, "Bristol Pottery."

L. 29. **Plate**, printed in blue

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* For the use of this woodcut we are indebted to Mr. Hugh Owen.

under the glaze with the common willow pattern; mark a blue cross.

L. 30. Plate, 9¾ inches diameter, in cream-coloured ware, well potted; ornamented with brown edge, and the centre painted with arms of Lord Nelson; the painting signed, "J. EAVES, BRISTOL."

L. 31. Plate, 10 inches diameter, in cream-coloured ware, with lobed border and brown edge; painted in centre with large apple and leaves in proper colours; impressed mark, P., perhaps the initial of Pountney.

L. 32. Plate, 9 inches diameter, in white glazed earthenware, with pressed edge and deep blue border; centre painted by William Fifield with large basket of flowers, having a bird perched on the handle; signed on reverse,

"W. F., 1848."

L. 33. Barrel, 4¾ inches high, the hoops painted in red, blue, and brown; the centre decorated with flowers by Fifield, and inscribed in lustred letters,

"E. A. Cornish, 1845."

L. 34. Cup and Cover, 5 inches high, ornamented with brown edge and lustred lines, the cover painted by Fifield with leaves in yellow, brown and green; the cup decorated with basket of flowers in square panel on one side, and with landscape in corresponding panel on other side; inscribed on the base in lustred letters,

"Made 1796, enamelled.
1841, W. F."

L. 35. Jug, in white glazed earthenware, lobed body, blue edge, and painted with flowers by Fifield, when in the 75th year of his age; inscribed in front,

"Mary King, born
August 21st, 1768;"

the jug stamped on the base, "POUNTNEY & ALLIES."

L. 36. Small Mug, in white glazed earthenware, with purple edge, and painted with flowers by Fifield; on the base is painted in purple the name of the vendor,

"E. H. James, Bristol."

L. 37. Plate, in porcelain, gilt edged, and painted with bunch of flowers in centre and sprigs of flowers on the border. Signed on back in gold,

"Pardoe, Fecit, Bristol."

L. 38. Plate, in porcelain, gilt edged, and painted with passion-flowers, &c., in centre and three sprigs of flowers on border. Unmarked, but forming a companion to the preceding piece.

L. 39. Frame containing sixteen blue-painted Delft Tiles, each 5 inches square, forming part of a large view of Redcliffe Church, Bristol.

Presented by Hugh Owen, Esq.

These tiles of Bristol delft were made by Richard Franks during the bishopric of Butler (1738 to 1750), whose arms are at the bottom of the painting. The frame is suspended against the wall between Cases X. and XI.

BRISLINGTON LUSTRE-WARE.*

The body of this ware is hard but very coarse. It is composed of clay and sand, covered with a yellow enamel dip, and resembles delft in character. The ornamentation in copper-lustre is exceedingly rude. The manufacture was carried on by Richd. Frank and his family, at Brislington, but became extinct before the end of the last century.

The late Mr. R. F. Ring remembered the Brislington works and indicated the locality. They were situated at the bottom of St. Ann's Wood, between St. Arno's Vale and the river, on a line about half-a-mile beyond Netham Dam; the building, afterwards occupied as a flour mill, still exists divided into tenements. The mill-pond, with its now open flood-gate, also remains. It was supplied by Brislington brook, the course of which is through the old flood-gate and over-fall, substantially built with blocks of moulded slag from the copper works. When the mill-pond, now grazing ground, was cleared out, about twenty-five or thirty years ago, a large quantity of fragments of broken lustre-ware was found; in itself satisfactory evidence of the former occupation of the premises as a pottery.

The ware made at Brislington was of a common and cheap character; and soap-dishes, small plates, and shallow baking-dishes of this ware are frequently met with in farm-houses and cottages in the neighbourhood of Gloucester and Bristol.

Some doubts have been expressed respecting the existence of this peculiar manufacture in Bristol, and the numerous examples have been affiliated to Spain, in forgetfulness that a prohibitory duty on foreign ware rendered it impossible to import so common a commodity. Moreover, the Spanish ware is of a rich pale lemon colour, soft and unctuous to the touch, with rich arabesque ornaments in copper-lustre, and commonly in addition, animals or birds in deep blue. The Brislington ware is much thicker and more clumsily made; wanting the smooth surface and the finer texture which characterise that of Spain; and the coating of enamel, thin and coarse, betrays to the touch an inferior manufacture. The colour, moreover, is crude, and the lustre ornaments, often mere dashes with the pencil, are poor and unartistic in form. It was burned with coal procured from the North of England; and the expenses of this fuel, which, according to information furnished by the late Mr. Richard Ring, was 2*l*. per ton, rendering the manufacture unremunerative, the works were closed.

The Brislington copper-lustre ware works were not included in the sale of the Water Lane Pottery by R. Frank to Joseph Ring in 1784. The book containing the inventory and particulars of the transfer of those works is in the possession of Mr. Hugh Owen.

There is evidence in proof that Richard Frank's son continued that factory after the pottery in Water Lane, Bristol, was disposed of. Richard Frank, the elder, died in April 1785; and, on the 14th June following, John Williams, son of Thomas Williams, of Bristol, labourer, was indentured as an apprentice to Richard Frank, potter, and Elizabeth, his wife, for seven years; with the usual proviso :—"Friends to find apparel and washing." There is a memorandum appended to this record in the Book of Apprentices kept by the Bristol corporation, that :—"On the 6th October 1780

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* For these notes we are indebted to Mr. Hugh Owen.

"John Williams was turned over to Elizabeth Ring, widow, for the remainder of his time." The Brislington works could not, therefore, have been closed before this; and the transfer of the apprentice probably marks the exact date of their discontinuance.

This ware has been distinguished by the title of copper-lustre from the similarity of the ornamentation to burnished copper, and although extensively used for the commonest purposes so few years since, the production of that peculiar lustre is now among the lost arts.

L. 40. SOAP-DISH, in Brislington ware; shallow conical shape; diameter of mouth, 4½ inches, height, 2½ inches; coarse paste coated with buff-coloured glaze, and ornamented with rude design in copper-coloured lustre.

Presented by Mrs. Emberson, 1872.

ROCKINGHAM PORCELAIN AND EARTHENWARE.

[Wall Case XXIV.]*

This ware was manufactured at Swinton, near Rotherham, in Yorkshire. As early as 1757 a tile-yard and a manufacture of earthenware were established on the estate of Charles, Marquis of Rockingham, in Swinton, Wath-upon-Dearne. Mr. Edward Butler, at that time the tenant and occupier, was induced to establish the manufactory in this locality, from the circumstances of various beds of clay having been found in an adjacent parcel of ground called Swinton Common, consisting of the common yellow clay used for the purposes of making bricks, tiles, and coarse earthenware; of a finer white clay for making pottery of a better quality; of an excellent clay for making fire-bricks; and also a white clay usually called pipeclay.

In 1765 the works became tenanted by Mr. William Malpass, who carried on the same kind of manufactory. In 1788 the works were taken by Messrs. Thomas Bingley and Co., a more opulent firm, who considerably enlarged them, and carried on an extensive trade, not only in the common descriptions of earthenware, but also in white, and blue and white dinner and tea services, and other wares of a superior quality. They also manufactured the brown or chocolate-coloured tea and coffee services, pitchers, &c., which obtained the name of "Rockingham ware," for which the demand was considerable.

It appears that from about 1790 to 1800, the firm was known as Messrs. Green, Bingley, and Co. In 1807, the works passed into the hands of Messrs. John and William Brameld; and upon their deaths, Messrs. Thomas, George Frederick, and John Wager Brameld became the tenants. During their tenancy the works were much enlarged, and a mill for grinding flints was erected. Many improvements were introduced in the manufacture of dinner services, &c., and of useful and ornamental earthenware of every description. About the year 1820, Mr. Thomas Brameld directed his attention, in addition to the ordinary work, to the manufacture of porcelain of the finest description, sparing no labour or cost in bringing it to perfection; and in the painting and gilding he employed the best artists.

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* Convenience of space has led to the selection of this position for the Rockingham ware, although it is thus separated from the productions of the other Yorkshire potteries.

At these works were produced, in glazed porcelain, dinner, dessert, breakfast, and tea services, vases, groups of flowers, chimney and drawing-room ornaments, cornices, &c., all richly painted and gilt; and in plain white biscuit china, vases, flower baskets, flowers, statuettes, busts, &c. Among their various productions were a dinner and a desert service on an extensive scale, richly painted and ornamented, for King William IV., and also a vase of a very large size, which is now in Wentworth Woodhouse, and is the property of Earl Fitzwilliam, the owner of the works.

In the years 1826 and 1827 (years of great commercial difficulties) Messrs. Brameld became embarrassed, but the works were continued by them with the assistance of Earl Fitzwilliam, their landlord, till the year 1842, when they were discontinued as a manufactory either of earthenware or of porcelain.

A portion of the works continued to be occupied by Mr. Isaac Baguley (formerly in the employ of Messrs. Brameld in the painting and gilding department), who purchased earthenware and china in the biscuit state, and completed the painting, gilding, and ornamental work for sale. The flint mill was also occupied and worked by Mrs. Brameld, the widow of the late Mr. Thomas Brameld.

The materials used by Messrs. Brameld in the china and porcelain works were Cornish stone and china-clay from St. Austell, in Cornwall; calcined bones, and flints from Ramsgate, Sandwich, Shoreham, and other parts of the coast of Kent and Sussex, which were ground at the works. Clay was also obtained from Wareham and other parts of the coast of Dorset.*

M. 1. PLATE, with royal arms painted and gilt in centre, and border of oak leaves in dead gold on green ground. Mark printed in purple with a griffin (the Rockingham crest) and *"Royal Rockingham Works, Brameld."*

M. 2. PLATE, with royal arms in centre and oak-leaf border gilt on turquoise-blue ground. Mark similar to that on the preceding piece.

Nos. M. 1 and 2 presented by Earl Fitzwilliam, K.G.

These were pattern plates for the dessert service made for William IV., as mentioned above. A specimen plate of this service recently sold for 30*l*.

M. 3. CUP and SAUCER. White ground with compartments painted green and bordered with vine pattern richly gilt. Centre of saucer and inside of cup painted with crown. Mark printed in purple with a griffin and *"Rockingham Works, Brameld, Manufacturer to the King."*

M. 4. CUP and SAUCER, with compartments painted dark green and bordered with rose, thistle, shamrock, and leek, richly gilt; ornamented with festoons of forget-me-not painted on white ground; centre of saucer and inside of cup with crown. Mark similar to that on No. M. 3.

M. 5. CUP and SAUCER, richly painted and gilt with the rose, thistle, shamrock, and leek on green ground; centre of saucer and inside of cup with crown. Mark similar to that on No. M. 3.

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* For much of the information given above we are indebted to the kindness of Earl Fitzwilliam, K.G.

M. 6. Vase, 11 inches high, painted with landscape in gilt-edged compartment on blue ground enriched with gold. Handle on each side in form of stork's head, gilt. Mark similar to that on No. M. 3.

M. 7. Figure, 8 inches high, of a Piedmontese peasant painted in proper colours, and inscribed in gold, "Paysan Piemontais de la Vallee d'Aoste." Stamped with griffin-crest, and *"Rockingham Works, Brameld."* "No. 57" scratched in paste.

M. 8. Breakfast Cup and Saucer, with twisted handle. Exterior chocolate coloured and ornamented with the rose, thistle, shamrock, and leek, richly gilt. Interior painted with wreath of flowers and crown, surmounted by lion. Unmarked, but authenticated as purchased from the manufacturers.

M. 9. Coffee-Cup and Saucer, with ribbed body ornamented with gilt stars, and the rose, shamrock, and thistle painted in blue. Marked in red with griffin and *"Rockingham Works, Brameld."*

M. 10. Egg-cup and Stand, painted with flowers and insects, and gilt. Marked similar to that on No. M. 9. Fractured.

Presented by Ben. Biram, Esq.

M. 11. Plate, with roses painted in centre, surrounded by deep blue border, gilt edged. Mark similar to that on No. M. 9.

M. 12. Earthenware Plate, gilt edged, painted in centre with *Dilwynia floribunda*; the botanical name written in red on the back. Impressed mark, "BRAMELD."

M. 13. Soup-plate, in earthenware, with centre and border painted in dark green. Stamped "BRAMELD."

M. 14. Small Coffee-pot and Cover, in brown glazed ware; stamped "ROCKINGHAM."

M. 15. "Cadogan," or tea-pot filled from opening in the base; brown Rockingham ware, ornamented with flowers, in relief; unmarked.

Presented by Mrs. Brameld.

M. 16. Small "Cadogan," similar to last; spout broken. Stamped "MORTLOCK'S CADOGAN."

M. 17. Bust, in highly-glazed chocolate-coloured ware; unmarked.

M. 18. Dessert Plate, in green-glazed earthenware; the border ornamented with pressed basket-work and diaper-pattern; impressed mark "BRAMELD."

M. 19. Cup, 4 inches high, 3 inches diameter at mouth; buff-coloured glazed ware, ornamented in white with scroll-work, and with frieze of infant musicians, laid on in relief, in Wedgwood's style; rising handle in form of horse's foot. Marked in relief "BRAMELD," surrounded by a wreath of rose, shamrock and thistle, on an oblong label stamped in white ware, and applied to the base of the cup.

Presented by Henry Willett, Esq., F.G.S.

M. 20. Bottle, 6 inches high, in fine white glazed porcelain painted and gilt with insects, and the globose body ornamented on each side with flowers modelled in high relief, and coloured after nature; stopper in form of flower; mark printed in purple, the griffin-crest, and *"Rockingham Works, Brameld. Manufacturer to the King."*

M. 21. Small **FIGURE** of a rabbit, in plain white glazed porcelain, stained in places; with "No. 110" scratched on the base, and stamped "ROCKINGHAM WORKS, BRAMELD."
Presented by Dr. Diamond, F.S.A.

Worcester Porcelain.

[Wall Cases XXV. to XXX.]

According to the historians of Worcester,* the manufactory of porcelain was established there in 1751† chiefly through the exertions of Dr. J. Wall, a physician of that city, who was at once a skilful chemist and an admirable artist. The company formed to carry on the works commenced its operations in a fine old mansion, called Warmstry House, formerly the residence of the Windsor family and the Earls of Plymouth. A view of the works appeared in the *Gentleman's Magazine* for August 1752. According to Mr. Binns,‡ the earliest Worcester china was composed of a frit body; and although the old receipt known as "The True Secret of making Worcester Porcelain" is not extant, yet he believes that the following formula must be very similar to that originally used by Dr. Wall, viz., sand, 120 parts; gypsum, 7; soda, 7; alum, 7; salt, 14; and nitre, 40. These materials having been fritted together, the product was crushed, and 75 parts of the frit were mixed with 15 of whiting and 10 of pipeclay. The body thus made was coated with a glaze containing 38 per cent. of red-lead, 27 of sand, 11 of ground flints, 15 of potash, and 9 of carbonate of soda. While the frit body long continued in use for the finer kinds of china, an inferior paste was formed for commoner ware by the use of steatite, which was obtained from the serpentine rocks of Mullion in West Cornwall. The frit paste was distinguished by its density and by its green colour when viewed by transmitted light, while the soap-rock body was less dense and of a yellowish colour.

As early as 1763 the Worcester porcelain seems to have been much esteemed. Thus a writer in the "Annual Register" for that year, after noticing the porcelain of Dresden and Chantillon, and classing that of Chelsea with them, considering all as more ornamental than useful, and as costly as oriental porcelain, adds, "We have indeed many "other manufactures of porcelain which are sold at a cheaper rate "than any that is imported, but except the Worcester they all wear "brown and are subject to crack, especially the glazing, by boiling "water."

In 1772 the twenty-one years' lease of Warmstry House expired, and the premises passed into the hands of a new company. In 1783 Mr. Flight purchased the property for 3,000*l*., and ten years later the firm became "Flight and Barr." On the admission of another partner in 1807, the style was changed to that of "Barr, Flight, and Barr," and on the death of the elder Barr in 1813, it became "Flight, Barr, and Barr." In 1788 King George III. visited the factory, and henceforth it was termed the Royal Worcester Porcelain Works.

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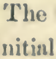
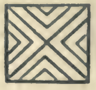
* Nash's "History of Worcestershire," vol. ii. p. 124; and Green's "History and Antiquities of Worcester," 1796, vol. ii. p. 19.

† The same date as that of the establishment of the Derby works. Probably the great success of the Chelsea and Bow porcelain about this time directed much attention to this manufacture. This success may have had some influence of the spread of earthenware as manufactured in Staffordshire. The Swansea pottery was established in 1750.

‡ "A Century of Potting in the City of Worcester, being the History of the Royal Porcelain Works from 1751 to 1851," by R. W. Binns, F.S.A., 1865, p. 40

It would appear that when the Worcester works were sold to Mr. Flight, two of the employés, Robert and Humphrey Chamberlain, left the establishment and commenced business in the town on their own account. This business was ultimately so successful as to prove a formidable opponent to the old works, and in 1840, after a long period of rivalry, the two establishments were amalgamated. At present the business is in the hands of a joint-stock company, under the management of Messrs. Phillips and Binns.

At an early date in the history of the Worcester works, Dr. Wall availed himself of the process of transferring printed engravings on to a glazed surface, and applied this art to the decoration of his porcelain. Some of the earliest specimens are delicate engravings by Robert Hancock, who had studied under Ravenet, an engraver employed at the enamel works which were established at Battersea in 1750, and where, according to Mr. Binns,* transfer-printing was first introduced. Many examples of early printing on Worcester china will be found in the collection, and especial attention may be directed to the jug, N. 33, which bears the earliest known date of Worcester printed ware, 1757. At first the designs were printed over the glaze and the printed pieces exposed only to the heat of the enamel kiln; but the invention of under-glaze printing soon followed, and the designs were then transferred to the ware when in the state of biscuit.

The early productions of Worcester seem chiefly to have been imitations of China and Japan wares,—imitations much encouraged by the high repute in which those kinds of porcelain were then held. One of the earliest ordinary marks, a crescent , can hardly be regarded as a counterfeit; but the brand of a chequer or square variously fretted , subsequently employed, bears a general resemblance to a Chinese mark. The crescent was not used after 1793. The letter *W* was used at an early date, and was probably suggested by the initial of both Wall and Worcester. Subsequently the name or initials of the firm were invariably employed, either stamped or printed, and most of these marks, varying with changes in the proprietorship, may be found in the following collection.

N. 1. COMPOTIER, circular, 10 inches in diameter, with fluted border; the centre painted with three butterflies, the border painted with flowers in four compartments divided by panels of blue and gold. Marked in blue with the Chinese fretted square.

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* "A Century of Potting in the City of Worcester," p. 55.

N. 2. COMPOTIER, circular, 8 inches in diameter; painted and gilt with Japan pattern in four compartments divided by red panels. Unmarked.

N. 3. FLOWER VASE, with Mazarin blue ground, enriched with scale-pattern; painted with exotic birds in compartments surrounded by gilt scroll borders in relief. Marked in blue with the Chinese fretted square.

N. 4. CUP and SAUCER, painted and gilt with conventional foliage in Japanese style. Marked in blue with Chinese square.

N. 5. COFFEE-CUP, painted and gilt with Japanese patterns, with oriental marks in blue.

N. 6. DOUBLE-HANDLED CUP on STAND, with COVER surmounted by a flower, richly painted and gilt with conventional foliage in Japanese style. Marked in blue with Chinese square.

N. 7. CUP and SAUCER, painted with flowers in compartments with gilt borders on deep blue ground, with scale-pattern. Marked with crescent in blue.

N. 8. SMALL CUP, painted and gilt with conventional foliage in Japanese style in compartments with gilt borders on blue ground with scale-pattern. Marked with crescent in blue.

N. 9. SAUCER, painted with birds and flowers in compartments on blue ground with scale pattern. Marked with crescent in blue.

N. 10. CUP and SAUCER, with fluted body, painted with flowers. Marked in blue with the Chinese fretted square.

N. 11. BASIN, with deep blue scale-pattern ground, painted with exotic birds and insects, in alternate compartments. Marked in blue with the Chinese fretted square.

N. 12. BASIN, painted in oriental style, with birds and flowers on white ground divided by deep blue panels with gilt flowers. Marked in blue with the Chinese fretted square.

N. 12*a*. SMALL OVAL DISH, painted with birds and flowers, known as Sir Joshua Reynolds's pattern; raised flowers at side, broken. Unmarked.

Presented by H. Willett, Esq., F.G.S., 1874.

N. 13. DISH, with fluted border, painted and gilt with Japan pattern. Marked in blue with *quasi* oriental characters.

N. 14. DISH, in oriental porcelain, decorated in similar style to N. 13, for which it has probably served as a pattern.

N. 15. DISH, with excentric radiating flutings, painted and gilt with conventional foliage in oriental style. Marked in blue with oriental characters.

N. 16. PLATE, with fluted border, decorated in same style as N. 15. Marked in blue with oriental characters.

Presented by Sir J. Thorold, Bart., M.P.

N. 16*a*. PLATE, painted and gilt with conventional flowers and animals in oriental style; circular centre surrounded by deep border divided into four compartments; reverse coarsely painted with conventional flowers. Marked in blue with pseudo-oriental characters.

N. 17. FRUIT BASKET, with open-work sides, painted with flowers, and scale pattern on deep blue ground enriched with gilding; back of open-work sides tinted with primrose, and ornamented with coloured quatrefoils in relief. Marked in blue with the Chinese fretted square.

N. 18. VASE and COVER, 10 inches high, painted and gilt in Japan style with spiral bands alternately red on white ground, and white on blue ground pencilled with gold. Marked in blue with the Chinese fretted square.

N. 19. Gallon Jug, with mask beneath the spout, richly painted with exotic birds and insects in panels, with gilt scroll-work borders on deep blue ground, ornamented with scale pattern. Marked in blue with the Chinese square, much blurred with the glaze. Cracked and rivetted.

No. 20. Two-handled Cup and Saucer, painted and gilt with Japanese fan pattern. Marked with oriental characters in blue.

N. 21. Two-handled Cup and Saucer, with blue and gold border, painted in centre with purple urn surrounded by floral festoons. Marked with the crescent in blue.

N. 22. Two-handled Cup, Cover, and Saucer, with blue and gold border, painted with flowers; knob in form of a tulip. Marked with crescent in blue.

N. 23. Soup Plate, with fluted border and scalloped edge, painted in centre with English landscape in circular medallion surrounded by flowers and insects; bordered in blue and gold. Marked with crescent in blue.

N. 24. Dish, with simple pattern known as the "Royal Lily," pencilled in blue; the borders enriched with gilding; the edge brown. Marked with blue crescent.

N. 24*a*. Cover of Muffin-Dish, with Royal Lily pattern pencilled in blue; the border enriched with gilding; the edge brown, the knob in form of a fir-cone. Mark rudely incised in paste B, and a cross.

Presented by T. Thornhill, Esq., 1872.

N. 25. Coffee-Cup and Saucer, ornamented with a succession of parallel vertical lines in three horizontal rows ("Music pattern"), traced in blue; the borders enriched with gilding. Marked with blue crescent.

N. 26. Cup and Saucer, with blue and gold border, painted with flowers in similar style to N. 22. Marked with blue crescent.

N. 27. Cup and Saucer, painted with flowers and butterflies. Marked in blue under the glaze with the crossed swords and figure 9.

N. 28. Basin, painted and gilt in Japanese style with spiral bands alternately blue and red, in same style as N. 18. Marked with blue crescent.

N. 29. Half-gallon Jug, with leaf-moulded body and mask under lip, painted with festoons of flowers, and blue border enriched with gilt running ornament. Unmarked.

N. 30. Double-handled Vase and Cover, 7 inches high, painted with flowers and birds in compartments on deep blue ground with scale pattern enriched with gilding. Marked in blue with Chinese fretted square.

N. 31. Small Vase and Cover, fluted body, painted with flowers in purple on white ground, with gilt scrolls bordering two of the groups. Marked with blue Chinese square.

N. 32. Vase and Cover, vermilion ground, with flowers in white, outlined in blue and gold. Marked with oriental characters in blue.

N. 33. Pint Jug, with specimen of early transfer-printing in black over the glaze (fig. 152); on one side a three-quarter portrait of Frederick the Great being crowned by an angel with a laurel wreath, and inscribed "King of Prussia," with date 1757;" on the other side an allegorical figure of Fame, and in centre a military trophy with three flags bearing the names of his victories "Reisberg, Prague, Collin; Welham, Rossbach, Breslau; Neumark, Lissa, Breslau." The engraving signed "RI Worcester."

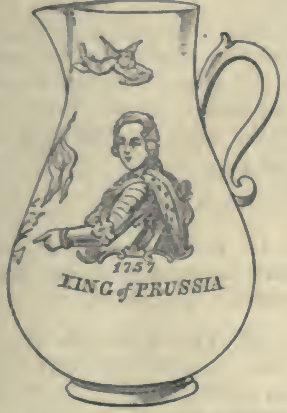
A poem on the subject of this transfer-print appeared in the "Gentleman's Magazine" for December 1757, and was reproduced with slight alterations in Berrow's "Worcester Journal" for January 1758. This poem was addressed to Josiah Holdship, to whom the design of the decoration was then attributed:—

"What praise is thine, ingenious Holdship, who
"On the fair Porcelain the Portrait drew."

In justice to Robert Hancock, who was really the engraver, the following couplet was annexed to the reprint of the poem in the "Worcester Journal:"

"Hancock, my friend, don't grieve tho' Holdship has the praise,
"'Tis your's to execute, 'tis his to wear the bays."

Fig. 152.



The following description of one of these King of Prussia Mugs, from the pen of Mr. Carlyle, is sufficiently graphic to justify its insertion at length:—

"A POTTERY APOTHEOSIS OF FRIEDRICH.

"There stands on this mantelpiece," says one of my correspondents, the amiable Smelfungus, in short, whom readers are acquainted with, "a small China Mug, not
" of bad shape, declaring itself, in one
" obscure corner, to be made at Wor-
" cester, 'R. I., Worcester, 1757' (late
" in the season, I presume, demand being
" brisk); which exhibits all round it, a
" diligent Potter's Apotheosis of Fried-
" rich, hastily got up to meet the general
" enthusiasm of English mankind. Worth,
" while it lasts unbroken, a moment's in-
" spection from you in hurrying along.

"Front side, when you take our Mug
" by the handle for drinking from it, offers
" a poor well-meant China Portrait, la-
" belled KING OF PRUSSIA: Copy of
" Friedrich's Portrait by Pesne, twenty
" years too young for the time, smiling
" out nobly upon you; upon whom there
" descends with rapidity a small Genius
" (more like Cupid who had hastily for-
" gotten his bow, and goes headforemost
" on another errand) to drop a wreath on
" his deserving head;—wreath far too
" small for ever getting on (owing to dis-
" tance, let us hope), though the artless
" Painter makes no sign; and indeed both
" Genius and wreath, as he gives them,
" look almost like a big insect, which the
" King will be apt to treat harshly if he
" notice it. On the opposite side, again,
" separated from Friedrich's back by the
" handle, is an enormous image of Fame,
" with wings, filling half the Mug, with
" two trumpets going at once (a bass,
" probably, and a treble), who flies with
" great ease; and between her eager face
" and the unexpectant one of Friedrich
" (who is 180° off, and knows nothing of
" it) stands a circular Trophy, or Im-
" broglio of drums, pikes, muskets, canons,
" field flags, and the like; very slightly
" tied together, the knot, if there is one,
" being hidden by some fantastic bit of
" scroll or escutcheon, with a Fame and
" *one* trumpet scratched on it;—and high
" out of the Imbroglio rise three standards
" inscribed with Names, which we per-
" ceive are intended to be names of Fried-
" rich's Victories; standards notable at
" this day, with Names which I will punc-
" tually give you.

"Standard first, which lies to the west-
" ward or leftward, has 'Reisberg' (no
" such place on this distracted globe, but
" meaning Bevern's *Reichenberg*, per-
" haps), 'Reisberg,' 'Prague,' 'Collin.'
" Middle standard curves beautifully round
" its staff, and gives us to read 'Welham'
" (non-extant, too; may mean *Welmina*
" or Lobositz), Rossbach (very good),
" 'Breslau' (poor Bevern's, thought a
" *victory* in Worcester at this time!).
" Standard third, which flies to eastward
" or right hand, has 'Neumark' (that is,
" *Neumarkt* and the Austrian Bread-ovens,
" 4th December); 'Lissa' (not yet *Leu-*
" *then* in English nomenclature); and

“ ‘Breslau again, which means the capture of Breslau *City* this time, and is a real success, 7th–19th December; giving us the approximate date, Christmas 1757, to this hasty Mug. A Mug got up for temporary English enthusiasm, and the accidental instruction of posterity. It is of tolerable China; holds a good pint, ‘To the Protestant Hero, with all the ‘Honours;’ and offers, in little, a curious eyehole into the then England, with its then lights and notions, which is now so deep-hidden from us, under volcanic ashes, French Revolutions, and the wrecks of a Hundred very decadent Years.”—*History of Friedrich II. of Prussia, called Frederick the Great*, vol. vii., book xviii., cap. x.

N. 34. CREAM JUG, with double twisted handle and black edge; ornamented in early black transfer-printing with preparation for an open-air tea drinking on one side and a tea party on the other. Marked in blue under the glaze with the Dresden brand of two crossed swords and the figure 9.

N. 35. SUCRIER and COVER, black edged, ornamented with Watteau groups in early black transfer-printing. Unmarked.

N. 36. SAUCER, in thin paste resembling “egg-shell,” decorated in black with scene of lovers seated beneath a tree. Unmarked.

The style of ornamentation on this piece somewhat resembles that of the old Dresden china etched with a diamond by Baron Busch, Canon of Hildesheim, but the difference is at once seen on examination under a strong lens.

N. 37. QUART MUG, ornamented in black transfer-printing with portrait of the Marquis of Granby crowned by a winged figure with laurel wreath; Britannia on one side and Fame on the other. Unmarked.

N. 38. QUART MUG, printed in black with portrait of the first Lord Chatham, in same style as N. 37. Unmarked.

N. 39. BASKET, with open-work sides, edged with purple, and decorated with scene of milkmaids in a farmyard, printed in black over the glaze, and inscribed “RH, Worcester,” with double anchor.

It is believed that the anchor was used as a rebus of the name “Holdship.” That the engraving, however, was due to Hancock, is testified by the signature to the next piece.

N. 39*a*. CUP and SAUCER, printed in black with milkmaid scene, as on last piece; signed “Hancock fecit.”

Presented by J. E. Nightingale, Esq., F.S.A., 1870.

N. 40. DISH, with fluted border and black edge, printed in black with milkmaid scene, as on preceding pieces, but the engraving not signed.

N. 40*a*. CUP and SAUCER, ornamented in black transfer-printing over the glaze; subject, a gallant kissing his lady's hand; swan printed inside the cup; the engraving on the saucer signed “RH Worcester.” with a single anchor.

N. 41. CUP and SAUCER, printed in black in memory of the Princess Charlotte. Unmarked.

N. 42. TWO-HANDLED CUP and SAUCER, ornamented with classic scenes printed in purple outline and afterwards painted and gilt. Unmarked.

N. 42*a*. MUG and SAUCER, coarsely printed in black with Watteau groups, after the early Worcester style.

This is a modern imitation, of which great numbers have recently been sold, easily detected by its general coarseness, and the bad engraving of the subject.

[N.B.—The following series commences on the third shelf of Case XXVIII.]

N. 43. Leaf-shaped Dish, with thick body, painted deep blue. Mark, oriental characters in blue.

From the Bandinel collection.

Perhaps of Bow manufacture.

N. 44. Leaf-shaped Dish, ornamented with flowers printed in blue under the glaze. Workman's mark.

N. 45. Leaf-shaped Dish, of same shape as N. 44, printed with flowers and insects in blue, and painted with flowers in colours; coated with yellow glaze. Marked with crescent in blue.

N. 46. Plate, painted with deep blue mottled ground, leaving eight compartments filled in with Chinese subjects in blue on white ground. Mark, oriental characters in blue.

N. 47. Small Plate, similar to last piece; oriental mark in blue.

These pieces are probably of Bow manufacture. Compare specimen of Bow china, H. 67, which however is much coarser and denser in body.

N. 48. Cup, with ribbed body and gilt edge, printed with Chinese subject in blue under the glaze. Workman's mark, a cross.

N. 49. Cup and Saucer, with pressed body and flowers printed in blue under glaze. Workman's mark.

N. 50. Cup and Saucer, with pressed body and blue printed flowers. Workman's mark.

N. 51. Cup and Saucer, octagonal, with fluted body, painted in blue in Chinese style. Workman's mark.

N. 52. Octagonal Saucer, printed in blue in Chinese style, with same pattern as on the preceding piece. Workman's mark.

N. 53. Sauce Boat, pressed body, with Chinese subjects printed in blue under the glaze. Workman's mark.

N. 54. Sauce-boat, ornamented with embossed flowers, and Chinese fishing-scene printed in blue. Workman's mark, two small crossed arrows with annulet at junction.

N. 55. Large Sauce-boat, with ribbed body ornamented in blue in Chinese style. Workman's mark, an arrow, with annulet on shaft.

From the Bandinel collection.

N. 56. Inkstand, with simple blue ornament and inscription, "M.S., 1767."

Some authorities have attributed this specimen to Plymouth, and others at Bow.

N. 57. Cream Jug, painted in deep blue with Chinese subject. Unmarked, but a blue crescent representing the moon is introduced into the landscape.

N. 58. Small Tea-pot and Cover, with Chinese fishing subjects in deep blue. Workman's mark, an arrow, with annulet on shaft.

N. 59. Tea-Pot and Cover, in plain white china with pressed flowers; the body barrel-shaped, and the cover surmounted by a flower. Unmarked.

N. 60. Tea-Pot and Cover, embossed with Chinese fishing-scene and flowers, and printed with flowers in blue; the body barrel-shaped, and the cover surmounted by a flower. Workman's mark.

N. 61. Cup and Saucer, printed with Chinese subjects in blue. Workman's mark a cross.

N. 62. Basin and Cover, with pressed body and wicker-work border, tinted primrose, ornamented with flowers printed in blue and edged with gold. Workman's mark.

N. 63. Half-pint Mug, ornamented with flowers printed in blue under the glaze. Marked in blue, W.

N. 64. Coffee-cup and Saucer, with fluted and ribbed body, printed in blue with carnation and other flowers. Marked in blue, W.

N. 65. Small Ladle, printed in blue with same pattern as that on N. 64. Unmarked.

N. 66. Dish, of lozenge shape, with fluted border, pressed wicker-work rim, and gilt edge; painted with flowers and insects in blue and outlined with gold; border coloured green between red lines. Marked in blue W.

N. 67. Plate, with fluted border and blue and gold rim, centre painted with flowers in gilt-edged circular panel surrounded by flowers in purple camaieu. Marked in blue, W.

N. 68. Plate, with pressed diaper border, ornamented in centre with flowers and insects printed in deep blue. Workman's mark.

N. 69. Small Sauce-boat, with pressed body, printed with blue flowers. Workman's mark three dots.

N. 70.
N. 70*a*. } Two Small Sauce-boats, of similar style to N. 69. Marked indistinctly with blue crescent.

N. 71. Hexagonal Tray, with lobed edged and fluted border, printed in blue under the glaze with Chinese subject. Unmarked.

N. 72. Small Leaf-shaped Dish, with blue feathered edge, printed with blue flowers. Marked with crescent in blue.

N. 73. Two handled Basket and Stand, with perforated Cover, ornamented with flowers in relief touched with blue; the centre printed in blue with flowers and fruit; the sides pressed with honey-comb pattern, bearing a blue quatre-foil in centre of each hexagon. Marked with blue crescent.

N. 74. Cup and Saucer printed with birds in deep blue. Marked with blue crescent.

N. 74*a*. Cup, coarsely painted with partridges and flowers; unmarked.

Presented by H. Willett, Esq., F.G.S.

N. 75. Coffee-cup gilt-edged, printed in deep blue, with Chinese fishing scene. Marked with blue crescent.

N. 76. Sauce-Boat, painted and gilt with Chinese figure-subject; edged with red and gold, and ornamented with pressed base; unmarked.

N. 77. Cup and Saucer, gilt edged, with blue printed border; the centre painted with Chinese figure subjects; the saucer marked with blue crescent, and the cup with workman's mark.

N. 78. Cup and Saucer, gilt edged, printed in blue with Chinese subject. Marked in blue with the Dresden caduceus.

N. 79. Saucer, with fluted border and gilt edge, painted in blue with quail or partridge pattern. Marked in blue with the Dresden cross-swords.

N. 79*a*. Dish, circular, painted with quail pattern; marked with gilt crescent.

N. 80. Coffee-Cup, of plain white body with gilt edge. Marked in blue with the crossed swords and figure 9.

N. 80*a*. Coffee-cup and Saucer, with double twisted handle; turquoise-blue ground with gilt edge, Marked in blue with crossed swords, and figure 9.

N. 81. Jug, with double twisted handle and cover surmounted by a flower; white body ornamented with richly gilt flowers. Marked in blue with crossed swords and figure 9.

N. 82. Plate, painted in blue in Chinese conventional style. Marked with blue oriental characters.

N. 83. Plate, rudely painted with flowers and fruit in blue. Marked with blue oriental characters.

Perhaps of Bow manufacture.

N. 84. Cup and Saucer, printed under the glaze with Chinese subjects in compartments on a pale mottled blue ground, marked in blue with square chequer and crescent.

N. 85. Basket, with twisted handles and open-work sides of diamond pattern, printed with flowers in blue. Marked with blue crescent.

N. 86. Compotier, ornamented with pressed shell pattern and pressed edge, printed in blue with flowers and fruit. Marked with blue crescent.

N. 87. Dish, with embossed floral pattern and blue-printed border. Marked with blue crescent.

N. 88. Dish, with pressed border of wicker pattern, printed in blue with flowers: unmarked.

N. 89.
N. 89*a*. } Pair of Salt-cellars, of octagonal shape, printed in blue in Chinese style.

N. 90. Small Tureen and Cover printed with flowers in blue under the glaze; handles and feet touched with gold: unmarked.

N. 91. Two-handled Basin, Cover, and Stand, gilt edged, painted with flowers in deep blue. Marked in blue with royal arms.

[N.B.—The following specimens are on the upper shelves, commencing with Case XXVIII.]

N. 92. Two-handled Sugar-basin and Cover, ornamented with sprigs of flowers and festoons in blue and gold. Marked with crescent in blue.

N. 93. Basin, Cover, and Stand, ribbed body, ornamented with sprigs of flowers in blue and gold. Marked with blue crescent.

N. 94. Basin and Cover, painted and gilt in Japan style with conventional foliage in compartments separated by blue bands. Marked in blue, *Flight,* and a crescent.

N. 95. Two-handled Vase, with spirally-fluted body, ornamented in blue and gold. Marked in blue, *Flight,* and a crescent.

N. 96. Coffee-cup, ribbed body with sprigs of flowers in blue and gold. Marked in blue, *Flight,* and a crescent.

N. 97. Coffee-cup, with spirally-fluted body, ornamented with sprigs of flowers in black and gold. Unmarked.

N. 98. Cup, spirally-fluted body, with gilt flowers and insects, and border in blue and gold. Marked with blue crescent.

Presented by Mrs. R. Barnett.

N. 99. Cup and Saucer, rudely painted with quail pattern. Marked with "B" scratched in the paste.

N. 99*a*. Small Tureen and Stand, gilt edged, ornamented with rose pattern printed in red over the glaze, and with gilt sprigs. Marked with "B," and a cross scratched in the paste.

N. 100. Two-handled Vase, 10½ inches high; green ground painted with large heart's-ease and anemone; the handles, rim, and foot being enriched with gilding. Impressed mark, "F. B. B." (Flight, Barr, and Barr), surmounted by a crown.

N. 101. Small Vase, in plain white porcelain with beaded border and ring handles pendent from eagles' mouths. Impressed mark, "B. F. B." (Barr, Flight, and Barr), surmounted by a crown.

N. 102. Small Vase, mounted on four claws; similar style to N. 101, but unmarked.

N. 103. Small Amphora and Cover, in plain white porcelain, with handles in form of satyrs' masks; the shoulder perforated with diamond pattern, and ornamented with bead border. Unmarked.

N. 104. Covered Cup and Saucer, delicately painted with arabesque scroll-work and birds on salmon-coloured ground, with gilt borders and white beading. Stamped "B. F. B.," with crown; and inscribed in red, "*Barr, Flight, and Barr, Royal Porcelain Works, Worcester; London House, No 1, Coventry Street.*"

N. 105. Mug and Saucer, pencilled in gold with vermicular pattern. Impressed mark, "B.F.B." and crown.

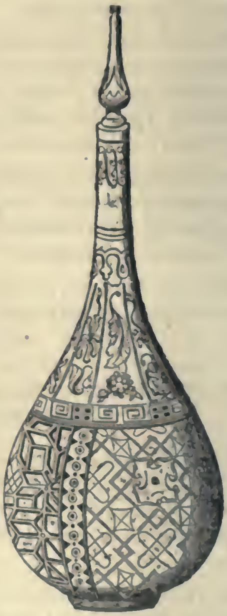
N. 106. Cup and Saucer, painted with landscapes in octagonal panels bordered in gold on fawn-coloured ground with gilt diamond pattern; the cup with view in Dove Dale, the saucer with view near Lymington, Hampshire. Mark written in red, "*Chamberlain's Worcester.*"

Presented by C. H. Carruthers, Esq.

N. 107. Quart Jug, painted and gilt with conventional flowers in Japan style. Marked in red, "*Worcester.*"

N. 108. Scent Bottle (fig. 153), with double sides, the outer ornamented with perforated work painted and gilt; the neck decorated with flowers on yellow ground. Marked in red, "*Chamberlain's, Worcester.*"

Fig. 153.



N. 109. Covered Vase, with pierced honeycomb pattern, decorated in similar style to last ece. Marked in red, "*Chamberlain's, Worcester.*"

N. 110. Cup and Saucer, made for Lord Nelson, with baron's coronet, ducal coronet, and Order of San Josef in panels on a ground painted and gilt with conventional pattern in oriental style. Unmarked.

This cup and saucer formed part of the breakfast service ordered by Lord Nelson on his visit to Messrs. Chamberlain's works at Worcester, on August 27th, 1802. It has been erroneously stated that the service was presented to his lordship by the ladies of England.

N. 111. Cup and Saucer, with impressed spiral pattern, ornamented with delicate lines in gold and turquoise-blue. Stamped with Kerr and Binns' mark, four W.'s in a circle, surrounding the figures 51.

N. 112. Worcester Regatta Mug for 1846, with deep blue ground enriched with gilding, and inscribed "E. R. Rowlands, No. 2;" painted with view of Worcester and marked in red, "*George Grainger, Royal China Works, Worcester.*"

[N.B.—The following pieces are placed at the back of the cases containing the Worcester China, XXVIII. to XXX.]

N. 113. Dish, with marbled ground and gilt edge; centre ornamented with landscape in bat printing. Impressed mark, "B. F. B.," surmounted by a crown.

N. 114. Plate, with gilt edge, the border ornamented with four small classic subjects in bat printing. Impressed mark, "B. F. B.," and crown.

N. 115. Plate, with *bleu-de-roi* border enriched with gilt ornaments in relief; the centre beautifully painted with vase of flowers on dark ground; stamped "B. F. B." with crown, and mark bat-printed in red "Flight, Barr, & Barr, Pro-" prietors of the Royal Porcelain " Works, Worcester, Established " 1751; Manufacturers to their " Majesties and the Prince Regent; " London Warehouse, No. 1, Co-" ventry Street."

N. 116. Plate, with deep blue ground pencilled in gold; painted with butterflies in four compartments. Mark written in red, "*Chamberlain's, Worcester.*"

N. 117. Plate, with gilt scroll edge, and green border painted with birds in panels. Marked in red, "*Chamberlain's, Worcester.*"

N. 118. Plate, with gadroon edge in white and gold, hollow *bleu-de-roi* border, and centre painted with bunch of flowers. Mark bat-printed in red, "Chamberlain's " Royal China, Worcester, & 155, " New Bond Street, London."

N. 119. Plate with scroll-work border in relief; deep marone ground ornamented with gilt scroll-work and floral pattern in yellow and gold, with flowers painted in central panel. Mark bat-printed in purple, " Chamberlain's, Worcester, & 155, " New Bond Street, London; Royal " Porcelain Manufacturers."

N. 120. Plate, with blue border ornamented with flowers in six compartments, edged with gilt oak-leaf pattern; centre plain, surrounded by gilt border of rose, shamrock, and thistle. Impressed mark, "CHAMBERLAIN'S, WORCESTER."

N. 121. Plate, painted with exotic birds in centre, and flowers in three panels with richly gilt edges on deep blue border. Impressed mark, "CHAMBERLAIN'S, WORCESTER."

N. 122. Plate, painted with mulberries in centre, surrounded by pink border, ornamented with gilt festoons jewelled with turquoise-blue enamel. Impressed mark, "WORCESTER ROYAL PORCELAIN WORKS."

N. 123. Plate, painted and gilt in conventional Japan style. Mark, written in red, "*Chamberlain's, Worcester.*"

N. 124. Plate, painted with arms of Lord Nelson and baron's coronet, ducal coronet, and Order of San Josef; surrounded by border of oak leaves and acorns with blue festoons inscribed in gold, "Nelson, San Josef," and "Nelson, Aboukir;" unmarked.

There are reasons for believing that this piece is not of Worcester manufacture.

N. 125. Plate, with plain centre and pink border painted with birds in panels bordered in green and gold; unmarked.

N. 126. Plate, painted with flowers in centre and in three panels on blue border ornamented with gilt scroll-work and flowers; unmarked.

N. 126*a*. Dessert Plate, circular, ornamented with gilt border, and painted with group of dianthus; impressed mark, four W.'s in a circle, surrounding the figures 51 within the horns of a crescent.

This mark was used by Messrs. Kerr and Binns after the year 1852. The W.'s refer to Worcester, and the figures to 1851, the year in which the manufacture of hard porcelain was introduced at these works. Compare mark on N. 111.

N. 127. Two-handled Vase, 18 inches high; deep blue ground enriched with gilding, and ornamented with raised vine leaves in white and gold; twisted floriated handles, gilt; figure subject painted in panel with gilt scroll border, and inscribed on base, "Marguerito, the Rose Queen of Salency. Mrs. S. C. Hall." Marked in pink, "Chamberlain and Co., Worcester."

[On top shelf of Wall Case XXXVI.]

N. 128. }
N. 129. } Pair of large two-handled Vases, 25 inches high, apple-green ground, partly marbled, and enriched with gilding; with views painted in octagonal panels with gold and white borders, N. 128 with view of Worcester, and N. 129 with view of Malvern. Marked, "Grainger, Lee, and Co., Worcester."

These vases are, on account of their size, mounted on pedestals and placed outside the wall cases between the windows.

N. 130. Cup, in Worcester porcelain, broken and partially fused, from the fire at the Alexandra Palace.

N. 131. Mug, in Worcester porcelain, with May-pole scene in transfer-printing; showing the effect of intense heat at the Alexandra Palace fire.

Nos. N. 130 *and* 131 *presented by Henry Willett, Esq., F.G.S.*, 1875.

Shropshire Pottery and Porcelain.

[Wall Cases XXXI. and XXXII.]

About the year 1751 a small pottery was established at Caughley, near Broseley, in Shropshire. Under Mr. Thomas Turner, who came from the Worcester works in 1772, porcelain of a superior quality was manufactured, and usually decorated with Chinese subjects printed in a celebrated deep blue colour. Mr. John Rose, the founder of the Coalbrook Dale or Coalport works, was apprenticed to Turner, and about 1780 he commenced business at Jackfield. One of the oldest potteries in the county had been situated in this locality, and mention of "potters from Jackfield" is said to occur as early as 1560. A few years after Mr. Rose had established his works at Jackfield, he removed to Coalport on the opposite side of the Severn. On the retirement of Turner, in 1799, Mr. Rose purchased the Caughley works, and about the year 1814 removed the business to his manufactory at Coalport; the Caughley works being then abandoned. In 1820 the Swansea and Nantgarw works were incorporated with the Coalport factory, and Messrs. Billingsley and Walker, of Nantgarw, were engaged there. About this period Mr. Rose introduced certain improvements, which gained for him the Society of Arts' gold medal (p. 52). Mr. John Rose, the founder, died in 1841, and was succeeded by Mr. W. F. Rose. The present proprietor is Mr. F. Pugh, the style of "John Rose & Co." being still retained. It is to be regretted that at one time the marks of other manufactories were imitated at Coalport.

O. 1. Quart Jug in common reddish-brown ware, coated with brilliant black glaze, and ornamented with gilt scroll-work and initials "I. E."

Coll. Enoch Wood.

This is a specimen of the early ware made at Jackfield in Shropshire. Such jugs are known locally as "black decanters."

O. 2. Tea-pot and Cover, in black-glazed Jackfield ware, with gilt inscription, "Richard and Ruth Goddin, 1769."

O. 3. Tea-pot and Cover, in black-glazed Jackfield ware; globose body on three clawed feet, with rustic handle and spout; cover surmounted by bird; body ornamented in relief with vine aud grapes, enriched with oil-gilding.

Presented by J. E. Nightingale, Esq., F.S.A.

O. 3*a*. Tea-pot and Cover, in black-glazed Jackfield ware; globose body on three clawed feet, ornamented with rustic figure-subject in panels painted in oil; the ground enriched with oil-gilding.

Presented by J. E. Nightingale, Esq., F.S.A.

O. 3*b*. Dish in old Broseley pottery; gilt edged, with view of the city of Worcester printed in black.

Coll. Burns.—Presented by C. J. L. Eames, Esq.

O. 4. Small Dish in white porcelain, with shaped edge and fluted border, ornamented with gilding; stamped "SALOPIAN."

O. 4*a*. Dessert Dish, square, with lobed border, printed with flowers in blue under the glaze, and enriched with gilt lines and border; impressed mark "SALOPIAN."

O. 5. Cup and Saucer, with fluted and ribbed body, gilt edged; impressed mark S.

O. 6. Coffee-cup, with ribbed body and gilt edge; unmarked.

O. 6*a*. Cup in cream-coloured ware, with ribbed body, ornamented with gilt border inside; unmarked.

O. 7. Cup, with fluted body, ornamented with sprigs of flowers in gold and blue; inside of cup ornamented with border in blue and gold; marked in blue under the glaze S.

Presented by Mrs. R. Overbury.

O. 8. Cup and Saucer, painted with sprigs of flowers in blue, and gilt; marked in blue under the glaze S.

O. 9. Two-handled Covered Cup and Saucer, painted with flowers in blue, and gilt (fig. 154); marked in blue under the glaze S.

O. 10. Sugar-basin and Cover, with ribbed body, divided into compartments by blue vertical lines, and ornamented with flowers painted in blue and gilt; marked in blue under the glaze S.

O. 11. Pint Mug, printed in Turner's deep blue with fruit, parrot, and butterfly; marked in blue under the glaze S.

O. 12. Mug, printed in deep blue with flowers and insects; marked

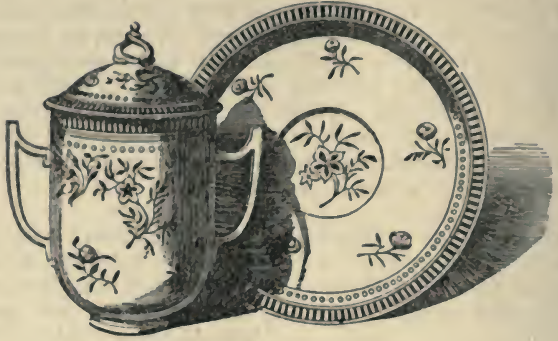


Fig. 154.

in blue under the glaze with S and a butterfly.

O. 13. **Quart Jug**, with mask beneath the spout, printed in blue with flowers, and inscribed

"James Kennedy,

1778;"

marked in blue C.

Coll. Enoch Wood.

O. 14. } O. 15. } **Two Plates** with shaped edge and fluted borders, printed in deep blue with Chinese fishing scene; marked in blue under the glaze S, and stamped "Salopian."

O. 16 to O. 19. } **Four Coffee-cups**, printed in deep blue with Chinese fishing scene; marked in blue with Arabic numerals, modified by flourishes so as to resemble oriental characters.

O. 20 to C. 23. } **Four Cups and Saucers**, gilt edged, and printed in deep blue in same style as Nos. O. 14 to 19, with similar marks.

O. 24. **Hexagonal Tray**, with fluted border and gilt edge, printed in blue in same style as preceding pieces, and marked with ornamental figure of 8.

O. 25. **Cup and Saucer**, with fluted and ribbed body, printed in blue with flowers and fruit; marked in blue under the glaze C.

O. 26. **Washing Basin**, printed in deep blue with flowers, fruit, and insects; marked in blue under the glaze C.

O. 27. } O. 28. } **Pair of Soap-dishes**, printed in pale blue with Chinese subjects; marked in blue under the glaze C.

[N.B.—The following pieces are exhibited in Case XXXII.]

O. 29. **Double-handled Vase**, 10½ inches high; painted in Chelsea style with birds and flowers, and enriched with gilding; marked in blue with C, and an anchor in the style of Chelsea porcelain.

O. 30. **Double-handled Vase**, 9 inches high; ornamented in same style as last piece, and marked in blue with C and anchor.

O. 31. **Covered Cup and Saucer**, painted with birds in gilt-edged compartment on turquoise-blue ground richly gilt; marked in blue with two L's crossed after the mark on Sèvres porcelain.

O. 32. **Covered Cup and Saucer**, painted with Cupid in compartment on *bleu-de-roi* ground, enriched with gilding; marked in blue with two L's crossed in imitation of Sèvres.

O. 33. Cup and Saucer, with gilt edge and flowers painted on white ground; marked with two L's crossed in imitation of Sèvres.

O. 34. Cup and Saucer, painted with birds and bordered with *bleu-de-roi* enriched with gilding; unmarked.

O. 35. Covered Cup and Saucer, in "egg-shell china," in imitation of Chinese porcelain, pencilled with vermicelli pattern in gold; unmarked.

O. 36. Dish of Fruit and Flowers, finely modelled, and painted in natural colours; marked in gold "*Coalport.*"

C. 37. Open-work Vase and Cover, formed of intertwined leaves and decorated with flowers in relief, painted and gilt; marked in blue under the glaze "*Coalport.*"

O. 38. Large two-handled Vase, with perforated cover, 20 inches high, painted with flowers in compartments; unmarked.

On account of its size, this piece is placed on the top shelf of Wall Case XXXVI., above the modern Staffordshire ware.

O. 39. Oval Dish, painted with flowers, and ornamented with fluted border and pressed scroll-work; marked in red bat-printing, "Coal-" "port improved Feltspar (*sic*) Por-" "celain, patronized by the Society" "of Arts; the gold medal awarded" "May 30th, 1820, J. Rose and Co."

O. 40. Plate, with pressed border, painted with flowers in similar style to last piece; mark, an impressed star.

O. 41. Shell-shaped Dish in thick white porcelain, stamped with a star.

O. 42. Rectangular Plaque, 6½ inches by 4½ inches, painted with group of fruit by Mr. Benlow's nephew.

O. 43. Rectangular Plaque, 10 inches by 8 inches, painted with bunch of grapes.

[N.B.—The following series of plates commences on the top shelf of Case XXXII.]

O. 44. Plate, painted with musical trophies, &c. in three compartments on green border enriched with gilding; centre painted with fruit and a bird; marked in purple, "JOHN ROSE & CO., COLEBROOK DALE, 1850."

O. 45. Plate, with *rose-du-Barri* border enriched with gilding, dividing the plate into four compartments with feather edges in blue, each painted with group of flowers and centre with trophy; mark as on No. O. 44.

O. 46. Plate, with light blue border enriched with gilding, and painted in centre with fruit; mark as on No. O. 44.

O. 47. Plate, with *bleu-de-roi* ground enriched with gilding, painted with flowers and fruit in centre, and with birds in three compartments on the border; mark as on No. O. 44.

O. 48. Plate, painted in centre with birds, with *bleu-de-roi* border, gilt; mark as on No. O. 44.

O. 49. Plate, with *bleu-de-roi* ground enriched with gilding, and painted in compartments with flowers and fruit; mark as on No. O. 44.

O. 50. Plate, with *bleu-de-roi* ground enriched with gilding; the centre painted with order of Saint Andrew, the body ornamented with

Russian orders painted on ivory-coloured ground in six compartments; marked in gold, "A. B. & "R. P. Daniell, 120, New Bond "Street, & 18, Wigmore Street."

Presented by Messrs. Daniell.

This plate is a specimen of the service executed by command of Her Majesty for presentation to the Emperor of Russia. It was exhibited in the Great Exhibition of 1851.

O. 51. DOUBLE-HANDLED COVERED CUP and SAUCER, painted and gilt with scroll-work, green borders, and figures of Cupid in scarlet medallions; marked in purple with monogram, "C. B. D." (Colebrook Dale), surrounded by inscription, "Daniell, London."

MODERN SHROPSHIRE WARE.

[Wall-cases XXXIX. to XLIV.]

The following examples of modern Majolica ware, manufactured and presented, in 1871, by Messrs. Maw & Co., of the Benthall Works, near Broseley, in Shropshire, are placed on the upper shelves of Wall-Cases XXXIX. to XLIV., where they are near the series of specimens illustrative of the modern productions of the Staffordshire potteries.

O. 52. VASE, 12 inches high; flask-shaped body, ornamented in Chinese style with two conventional lizards in relief; coated with deep yellow glaze; impressed mark, "Maw & Co., No. 1."

O. 53. Similar VASE, coated with mottled blue glaze.

O. 54. VASE, 7½ inches high; oviform body, with two handles; coated with turquoise-blue glaze; stamped "No. 12."

O. 55. Similar VASE or amphora, with canary-yellow glaze.

O. 56. Similar VASE, with mottled green glaze.

O. 57. Similar VASE, with mottled purple glaze.

O. 58. Similar VASE, with mottled purple and green glaze, somewhat resembling that on the so-called tortoise-shell ware.

O. 59. VASE, 6½ inches high, with two handles in form of griffins modelled in oriental style; coated with variegated or mottled blue glaze; impressed mark, "Maw & Co., No. 18."

O. 60. Similar VASE or amphora, with mottled red glaze.

O. 61. Similar VASE, with mottled brown and green glaze, resembling that of tortoise-shell ware.

O. 62. VASE, 8¼ inches high; slender conical body, with two lateral bosses in form of lion-masks; coated with turquoise-blue glaze; stamped "No. 11."

O. 63. Similar VASE, with variegated dark and light blue glaze.

O. 64. Similar VASE, with Indian-red glaze.

O. 65. VASE, 8¼ inches high, coated with white glaze, and ornamented with impressed design, which appears of a darker tint than the surrounding ground, in consequence of the greater thickness of glaze in the incised design; stamped "No. 14."

O. 66. Similar VASE, coated with a brilliant green glaze.

O. 67. Sucrier and Cover, $4\frac{3}{4}$ inches high, coated with blue glaze and ornamented with embossed ornament, the raised portions appearing lighter than the surrounding ground; impressed mark, "Maw & Co., No. 9."

O. 68. Patera, 8 inches in diameter, embossed in centre with a classic female profile, surrounded by a circular wreath, and border ornamented with radial fluting and floral design; the whole surface coated with blue glaze; impressed mark, "Maw & Co."

O. 69. Similar Patera in colours; yellow portrait on lilac ground, with wreath of green laurel leaves and yellow berries; green border, with lilac edging.

O. 70. Majolica Jardinière, 12 inches high, 24 inches long, and 12 inches wide; ornamented in high relief and coated with coloured glazes. In front and at back a female bust supporting the cornice, with outstretched arms bearing olive branches; at each side a male mask; at the corners four rams' heads with pendant wreaths of oak-leaves; the four feet formed of scroll-work springing from the base.

O. 71. Architectural Column. 24 inches high; ornamented with floral border spirally entwined around the shaft, and which four male and female masks decorating the capital; coated with white, yellow, and lilac glazes.

O. 72. Column, 24 inches high, with slender ornamental shaft, coated with white and yellow glazes.

O. 73. Circular Medallion, 10 inches in diameter, with cinquefoil ornament in centre surrounded by radial fluting; coated with brilliant green glaze; stamped "No. 18."

O. 74. Similar Medallion, coated with Indian-red glaze.

O. 75. Similar Medallion, in colours; green, yellow, and white.

O. 76. Circular Medallion, 10 inches in diameter, ornamented in bold relief with male mask in white on yellow ground.

O. 77. Similar Medallion, with male mask in white on green ground, with yellow border; stamped "No. 19."

O. 78. Similar medallion, with female mask in white on green ground, with yellow border.

O. 79. Frieze, 3 inches wide, with running pattern of entwined leaves in white on green ground, with yellow border; stamped "No. 22."

O. 80. Similar Frieze, with green ornament on yellow ground, with white border.

O. 81 to O. 84. Portions of a Frieze, 3 inches wide, with running border of leaves and berries, each section differently coloured.

O. 85. Panel, $8\frac{1}{2}$ inches wide, ornamented in bold relief with vases of flowers and a dolphin in white, touched with yellow, on green ground; stamped "No. 21."

O. 86. Rectangular Panel, 12 inches by 6 inches; ornamented in relief with vase of flowers and festoons and ribbons; coated with blue glaze; stamped "No. 17."

O. 87. Similar Panel, with ornament in white with yellow ribbon on green ground.

O. 88. Tile, 6 inches square, ornamented in bold relief with female mask in white with festoons of yellow beads on green ground; stamped "No. 17."

O. 89. Similar Tile, coated with yellow glaze.

O. 90. Similar Tile, with male mask in white with festoons of yellow beads and pendent ribbons on green ground; stamped "No. 17."

O. 91. Similar Tile, with blue ground.

O. 92 to O. 96. Five Tiles, each 6 inches square, ornamented in relief with radiate floral ornament in centre surrounded by a square frame; each specimen differently coloured.

O. 97 to O. 100. Four Tiles, each 6 inches square, ornamented in low relief with leaves and berries; each specimen differently coloured.

O. 101 to O. 104. Four Tiles, each 6 inches square, covered with pattern of imbricated leaves in low relief; each specimen differently coloured.

O. 105. O. 106. Two Tiles, each 3 inches square, with embossed leaves and flowers, coloured.

O. 107 to O. 112. Six Tiles, each 1 inch square, with embossed leaf-ornament, variously coloured.

O. 113 to O. 117. Five segments of Borders, 1 inch wide, with running ornaments, variously coloured.

O. 118. O. 119. Two Bosses for architectural purposes, each 3 inches in diameter; glazed, one red and the other purple.

O. 120 to O. 124. Five similar Bosses, each 2 inches in diameter, coated with glazes of various colours.

O. 125. Ornamental Boss, 3 inches in diameter, with radiate floral ornament embossed, and glazed blue.

O. 126. Tablet supporting several samples of Terra-cotta Plant-markers, manufactured by Messrs. Maw & Co.

Swansea Earthenware and Porcelain.

[Wall Cases XXXIII. and XXXIV.]

Earthenware works were established at Swansea about the year 1750, and the ware there manufactured was of much the same kind as that then produced at the Staffordshire potteries. The works, with the name of the "Cambrian Pottery," became much extended in 1790, under the management of Mr. George Haynes. In the early part of this century he introduced a superior kind of ware, giving it the name of "Opaque China." In 1802 Mr. Lewis Weston Dillwyn purchased the Swansea works, and soon afterwards, by the aid of Mr. W. W. Young, the draftsman employed by him in his works on natural history, whom he had instructed in enamel painting, the opaque china became remarkable for beautiful and truthful painting of birds, butterflies, and shells, drawn from nature.

Although it would appear from passages in Donovan's "Excursions in South Wales and Monmouthshire" that a kind of porcelain was manufactured at Swansea towards the end of the last century, yet it was not until 1814 that the fine paste which obtained such repute as "Swansea porcelain" was produced. Respecting the introduction of this manufacture Mr. Dillwyn has afforded us the following information :—

"My friend Sir Joseph Banks informed me that two persons, named

Walker and Beely,[*] had sent to Government, from a small manufactory at Nantgarw (ten or twelve miles north of Cardiff), a specimen of beautiful china, with a petition for their patronage, and that, as one of the Board of Trade, he requested me to examine and report upon that manufactory. Upon witnessing the firing of a kiln at Nantgarw, I found much reason for considering that the body used was too nearly allied to glass to bear the necessary heat, and observed that nine-tenths of the articles were either shivered, or more or less injured in shape by the firing. The parties, however, succeeded in making me believe that the defects in their porcelain arose entirely from imperfections in their small trial-kiln, and I agreed with them for a removal to the Cambrian pottery, at which two new kilns, under their direction, were prepared. While endeavouring to strengthen and improve this beautiful body, I was surprised at receiving a notice from Messrs. Flight and Barr, of Worcester, charging the parties calling themselves Walker and Beely with having clandestinely left an engagement at their works, and forbidding me to employ them."

An excellent body was finally obtained at Swansea, and as might be expected, the natural history subjects painted upon it were most carefully executed. The manufacture was not, however, long continued. Other occupations engaging the attention of Mr. Dillwyn, the manufacture of porcelain was laid aside in 1817, and earthenware again became the sole product of the Swansea pottery, until about the year 1820, when the works were discontinued, and the appliances, having been purchased by Mr. Rose, were removed to Coalport.

The North Devon or Bideford clays seem to have been early employed at the Swansea works, as also the Dorset or Poole clays. Cornish kaolin and china-stone likewise formed a portion of the porcelain body. Steatite, from veins in the serpentine of the Lizard, Cornwall, was also employed during the manufacture of the porcelain. Flints were obtained chiefly as ballast in trading vessels and colliers, from the chalk districts of the south and south-east of England.

As regards marks, Mr. Dillwyn says that "the articles made at and "marked 'Swansea' include all, I believe, which have a more compact "fracture, and the addition of a trident denotes a supposed improvement, "which was ultimately not found to answer."

P. 1. EARTHENWARE FIGURE of infant with basket of flowers, in earthenware, painted in colours; marked in brown, "*Cambrian Pottery.*"

P. 2. EARTHENWARE VASE, 8½ inches high; mottled blue body, with band of flowers painted on white ground; marked in brown, "*CAMBRIAN.*"

P. 3. EWER, of classic form, with trefoil lip and gilt handle; ornamented with Greek figures in white, outlined in black printing on blue ground; subjects, on one side Hector and Helen, and on the other side Hector and Andromache; stamped "OPAQUE PORCELAIN."

P. 4. EARTHENWARE DESSERT DISH, four lobed, with gilt edge; painted in centre with the kestrel (*Falco tinnunculus*), and marked on the back with the name of the bird; stamped "SWANSEA," and the letter C.

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[*] *Beely* was a corruption of *Billingsley*, the name of Walker's father-in-law.

P. 5. Earthenware Dessert Dish, similar to last, painted with the hen harrier (*Falco cyanicus*); same mark.

P. 6. Earthenware Dessert Dish, similar to last, painted with the merlin (*Falco æsalon*); same mark.

P. 7. Earthenware Dessert Dish, oval, in same style as last piece, painted with the gray wagtail (*Motacilla boarula*); same mark.

P. 8. Earthenware Centrepiece, for dessert service, mounted on foot, with gilt edge; painted in centre with the golden eagle (*Falco chrysatos*); same mark.

P. 9. Earthenware Plate, gold edged, painted with three butterflies (*Papilio Ægeria*, *P. Cardui*, and *P. Jurtina*); unmarked.

Presented by Mrs. Dillwyn.

Nos. P. 4 to 9 inclusive are "opaque china."

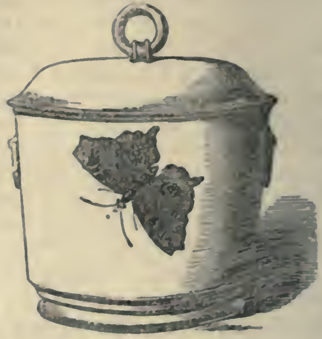
P. 10. Earthenware Plate, white body with brown edge, painted in centre with the bladder hibiscus; impressed mark, "SWANSEA."

P. 11. Earthenware Plate, cream-coloured body, ornamented in early black transfer-printing over the glaze, with flowers in centre and vermicelli border between gold edges; impressed mark, "DILLWYN & CO."

P. 12. Earthenware Sugar-Basin and Cover (fig. 155), gilt edged, and painted with butterflies with scientific names written on the inside (*Papilio Atalanta*, *P. Io.*, *P. lucina*, *P. Argus*, and *P. Artaxerxes*); unmarked.

P. 13. Earthenware Sugar-basin and Cover, of similar shape to No. P. 12; with band of Greek fret pattern in gold; unmarked.

Fig. 155.



P. 14. Earthenware Cup and Cover, cream-coloured, ribbed body, with green edges and festoons in brown and black; unmarked.

P. 15. Cream Ewer, in buff ware, glazed inside; ornamented outside in relief with female figures, in the style of Wedgwood and Turner; impressed mark, "SWANSEA."

P. 16. Earthenware Cup and Saucer, cream coloured, with brown edges, painted with border of flowers; unmarked.

P. 17. } Pair of Earthenware
P. 18. } Dishes, cream coloured, with brown edges, painted in centre with fruit; one of the dishes stamped with a small star.

P. 19. Oval Plaque, in black frame of moulded earthenware, painted with figure of a Druid cutting mistletoe from the oak, by W. W. Young, about 1803 or 1805.

P. 20. Toilet Tray, in porcelain, painted and gilt with flowers; unmarked.

P. 21. Porcelain Plate, with gilt scroll border, painted with the Hoopee; marked in red, "*Swansea.*"

P. 22. Porcelain Plate, with moulded edge and gilt scroll border; marked in red, "*Swansea.*"

P. 23. Porcelain Plate, with pressed border and gilt edge; marked in red, *"Swansea."*

P. 24. Porcelain Plate; white border with embossed flowers; impressed mark, "SWANSEA" and a trident.

P. 25. } Two Porcelain Plates,
P. 26. } plain white body, with impressed mark, "SWANSEA," and a trident.

Nos. P. 21 to 26 presented by Mrs. Dillwyn.

P. 27. Porcelain Dish, of oval shape, with two handles and embossed border; impressed mark "SWANSEA."

P. 28. Porcelain Basin, ornamented with scroll-work and flowers in green and gold; marked in red, *"Swansea."*

Presented by Mrs. Dillwyn.

P. 29. Porcelain Cup and Saucer, with gilt edges and pressed border, similar to No. P. 23; marked in red, *"Swansea."*

Presented by Mrs. Dillwyn.

P. 30. Porcelain Cup and Saucer, with gilt edges, painted with flowers; the saucer marked in red, "SWANSEA."

P. 31. Small Two-handled Vase, of white porcelain, with pressed ornament; impressed mark, "SWANSEA."

This vase is of the same body or paste as the specimens of Nantgarw porcelain, and was an experimental piece made on trial, in 1814 or 1815, to render the body more durable.

Presented by Mrs. Dillwyn.

P. 32. Statuette; recumbent figure of Antony, modelled in black ware, and stamped "SWANSEA."

P. 33. } Pair of double-handled
P. 34. } Tazze, of Greek form (cylix), in red earthenware, painted with glazed black ground, leaving a female figure and classic border in red; one of them marked in black, "DILLWYN'S ETRUSCAN WARE" in a floriated scroll.

Presented by Lewis Dillwyn, Esq., M.P.

P. 35. Amphora, 15 inches high, of red ware, painted with glazed black ground, leaving classic figure-subjects in red.

Presented by Lewis Dillwyn, Esq., M.P.

On account of its size, this piece is placed on the top shelf of Wall Case XXXVII., above the Modern Staffordshire pottery.

P. 36. Bracket, in red terra-cotta, after design by Michael Angelo.

Presented by Lewis Dillwyn, Esq., M.P.

This bracket is fastened to the wall near the case of Swansea specimens, and above the plaque G. 594.

P. 37. Cup, in porcelain, with gilt edge; ornamented with two butterflies and a beetle outlined in transfer-printing over the glaze and coloured by hand; unmarked.

Presented by J. F. Walker, Esq., M.A., F.G.S., 1874.

It is extremely doubtful whether this piece can justly be referred to Swansea, but it seems to approach nearer to some of the Swansea porcelain than to any other English ware.

P. 38. Plate, cream-coloured earthenware, printed in black under a brilliant glaze, with a British man-of-war in full sail, with naval trophies, &c.; impressed mark, "DILLWYN & CO.," and figure 10.

There is reason to believe that this is a modern piece.

P. 39. Ornament in form of a small ram, couchant, in white biscuit; stamped on the base "BEVINGTON & CO., SWANSEA."

NANTGARW PORCELAIN.

[Wall Case XXXIV. ; upper shelves.]

In 1813 a porcelain manufactory was established at Nantgarw, near Cardiff, by Billingsley and Walker, who have been already mentioned in connexion with the Swansea porcelain. They produced a soft vitreous paste of very fine texture, breaking with a saccharoidal fracture. About the year 1820 Mr. John Rose, of Coalport, purchased the Nantgarw works, and the appliances were transferred to Coalbrook Dale, where the services of Billingsley and Walker were continued until the death of the former in 1828. It would appear, however, that a manufactory of china was conducted at Nantgarw after Billingsley's removal in 1820. The following is an extract from a memorandum of agreement made on the 2nd February 1822, between Mr. David Morgan, of the town of Neath, ironmonger, of the one part, and William Weston Young, of the parish of Newton Nollage, land surveyor, of the other part, whereby it is agreed "that he [Morgan] "shall not make bricks or any other articles from the said sand [Dinas "sand*] without the consent of the said Wm. W. Young, who does also "agree on his part to bind himself in the same manner and under the same "penalties [£5,000] not to reveal the said method to any other person or "persons, or to make any fire-brick or any other articles for sale from the "said sand without the consent of Mr. D. Morgan, but that he shall at all "times be at liberty to make the said materials for his own purposes at *his* "*china manufactory at Nantgarw* or elsewhere."

Q. 1. **PLATE**, with pressed border, blue edged, painted in centre with flowers; impressed ' mark, "NANTGARW," and initials "G. W." (George Walker).

Q. 2. **PLATE**, painted with centre and border of roses; same mark as that on last piece.

Q. 3. **PLATE**, with roses painted in centre and in compartments on border of green and white chequer pattern with gilt quatrefoils; same mark as on No. Q. 1, with insect painted on reverse.

Q. 4. **PLATE**, ornamented with large basket of flowers painted by James Turner, formerly of the Derby works; same mark as on Q. 1.

Q. 5. **PLATE**, painted with flowers and fruit; same mark as on Q. 1, with insect and sprig of deadly nightshade.

Q. 6. **PLATE**, with border painted and gilt with festoons of flowers; centre painted with bird and butterflies; same mark at on Q. 1.

Presented by Mrs. Smyth.

Q. 7. **PLATE**, painted with flowers and insects in centre, and border of roses on ground sprinkled with gilt dots; same mark as on Q. 1, with two insects in colours.

Q. 8. **PLATE**, painted with flowers and insects in centre, with floral border on ground sprinkled with gilt dots; same mark as on Q. 1.

Q. 9. **PLATE**, with brown edge. painted in common style with birds and insects; same mark as on Q. 1.

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* This is a siliceous deposit occurring in the Vale of Neath, in Glamorganshire, and valued for the manufacture of fire-bricks which are used in the construction of furnaces for copper-smelting.

Q. 10. SMALL CUP, with green and gold rim, ornamented with beaded border, and painted with rose and convolvulus; handle in form of dragon's head looking into the cup.

Q. 11. } Two CUPS in an un-
Q. 12. } finished state, which appear to have been experimented upon with a view to obtaining the *bleu-de-roi* colour of Sèvres.

Presented by Joseph Marryat, Esq.

LEEDS POTTERY.

[Wall Cases XXXV. to XXXIX.]

Pottery was first manufactured at Leeds in 1760 by two brothers named Green. It is said that the earliest production was a black ware, but the manufacture of cream-coloured ware must have been soon afterwards introduced. The clays were brought from Devon and Cornwall; and probably Poole clay was employed from the commencement of the works.* The pottery was conducted at an early date under the style of "Humble, Green, and Co." Mr. Wilson has found the draft of an agreement, dated November 11, 1775, whereby "Joshua Green, of Middleton, gent., and "John Green, of Hunslet, potter, with divers others, under the firm of "Humble, Green, and Co.," agree with Messrs. Hutchinson and Evers to erect and maintain in repair at their mill a water-wheel with all neccessary machinery for grinding flints. For thirteen years the wheel was to be used exclusively by Greens, who were to supply burnt flints and to pay 10*s*. for every 100 pecks of well-ground and levigated flints, the workman's wages being first deducted.

Subsequently the title of the firm was changed to that of "Hartley, Greens, and Co." At one time they carried on an extensive trade with Russia, their agent in that country being first Mr. Barwick, and afterwards his nephew, Mr. Jubb. As the Leeds pottery was found to effectually withstand the severity of the climate, it enjoyed almost a monopoly of the Russian market, until superseded by the lighter ware manufactured by Wedgwood. Illustrated pattern-books of the pottery were published by Messrs. Hartley, Greens, & Co. One of these, printed in English, French, and German, is in the library of the Museum of Practical Geology, and bears the following English title: "Designs of sundry articles of Queen's "or Cream-colour'd Earthen-Ware, manufactured by Hartley, Greens, aud "Co. at Leeds Pottery; with a great variety of other articles. The same "Enamelled, Printed, or Ornamented with Gold to any Pattern; also with "Coats of Arms, Cyphers, Landscapes, &c. &c. Leeds, 1786." The French title-page in the same copy is dated 1785, while the German title bears as early a date as 1783. This copy, from which three plates are missing, was presented to the library by Mr. W. Sykes Ward, of Clay Pits House, Leeds. A second copy of the Leeds pottery pattern-book was presented in 1865 by Mr. Llewellyn Jewitt, F.S.A. It contains the three plates missing from the former copy, with many additional illustrations, but has no title-page. It is, however, of much later date, as the paper bears a water-mark dated 1814. The business of the Leeds pottery subsequently passed into the hands of Mr. Samuel Wainwright, then to Messrs. S. & J. Chappel, and finally to Messrs. Warburton and Britton.*

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* In 1796, Hutchins mentions, in his *History of Dorset*, that much of the Poole clay was exported "to Selby, for the use of the Leeds potteries." (See *Ante, Note*, p. 6.)

Much of the cream-coloured ware manufactured at Leeds bore considerable resemblance to Staffordshire pottery. Perforated work is frequently introduced, but is commonly confined to a few characteristic patterns. Although the ware was but rarely marked, several of the specimens in the collection are stamped with the name of the pottery in full.

R. 1. **Oval Dish**, in plain cream-coloured ware; stamped "HARTLEY, GREENS, & CO., LEEDS POTTERY," and figure 5.

R. 2. **Dish**, oblong, 13 inches by 11 inches; cream-coloured ware, with pressed rim and pierced border; stamped, "LEEDS POTTERY."

R. 3. **Dish**, circular, 6 inches diameter; cream-coloured ware, with pierced border; stamped in two places, "LEEDS POTTERY."

R. 4. **Plate**, in cream-coloured ware, $9\frac{1}{4}$ inches, diameter, with pressed edge and perforated border; unmarked.

R. 5. **Toy Plate**, circular, $3\frac{3}{4}$ inches diameter; cream-coloured ware with pierced diamond-pattern border; unmarked.

R. 6. **Dish**, oval, in deep cream-coloured ware, with moulded edge and perforated border; unmarked.

R. 7. **Dish**, oval, in deep cream-coloured ware, with lobed edge, and border divided into twelve compartments, of which six are ornamented with perforated work; unmarked.

R. 8. **Dish**, of an oval lozenge shape, with pressed shaped edge, and border divided into twelve compartments, each ornamented with perforated work; unmarked.

R. 8*a*. **Dish**, circular, $7\frac{1}{2}$ inches diameter; cream-coloured ware with perforated border and raised festoons; impressed mark, W (***).

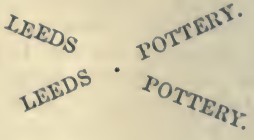
This piece has many of the characteristics of Leeds ware, but the signification of the mark is unknown.

R. 9. **Oval Dish**, double-handled and mounted on foot, in drab, salt-glazed stone-ware, with pressed rim, and perforated border and centre; unmarked.

Although the perforated work on this piece closely resembles that on some of the Leeds ware, yet the body differs so greatly from the typical pottery of Leeds that it is possible this piece may be of Staffordshire make. It is of a drab colour; is much denser than the Leeds ware; and is coated with a salt-glaze.

R. 10. **Small Dish**, in cream-coloured ware, with shell handle and pierced centre; unmarked.

R. 11. **Open Work-basket**, of oval shape, in white ware tinted with blue; stamped



R. 12. **Soup Plate**, in plain white ware, with pressed feather-edge, tinted blue; impressed mark, "LEEDS POTTERY," and figure 7.

R. 13. **Plate**, in cream-coloured ware, with pressed edge and perforated border; ornamented in centre and at intervals round the border with flowers outlined in black and enamelled bright green; unmarked.

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* Considerable information concerning the history of the Leeds pottery was kindly furnished some years ago by Mr. Thomas Wilson, of Leeds, and Mr. William Warburton, the son of one of the present proprietors.

R. 14. OVAL DISH, in cream-coloured ware with border perforated in eight compartments, and edged in black; ornamented with embossed festoons, and with black transfer-printing in centre representing figure of Liberty with lion couchant and military trophies; inscribed, "Voor Vrijheid en Vaderland."

Probably made for the Dutch market. It is known that the Leeds pottery had at one time an extensive continental trade, and the pattern-book of the pottery was issued in several languages.

R. 15. OVAL DISH, with border perforated in twelve compartments, and ornamented with embossed festoons and female masks.

R. 16. OVAL DISH, in cream-coloured ware, with pressed border tinted in purple and ornamented with perforated work in eight compartments; the centre painted with portrait in purple, surrounded by gilt scroll border and flowers.

R. 17. OVAL DISH, in cream-coloured ware, with border divided into twelve compartments, painted alternately yellow and pink, separated by green ribs, and ornamented with perforated work; centre painted with flowers and insects.

R. 18. LARGE SOUP-TUREEN, in cream-coloured ware, ornamented with pressed scroll pattern, and pair of twisted handles terminated in floriated ornament.

These tureens may be compared with those attributed to Staffordshire (G. 213, G. 214); it is, indeed, extremely difficult to separate some of the Leeds and Staffordshire cream-ware, and it is possible that occasionally a piece of this kind may be referred to one or the other locality on insufficient grounds.

R. 19. SMALLER SOUP-TUREEN and COVER, in cream-coloured ware, with twisted floriated handles, and cover surmounted by fruit.

R. 20. NIGHT LAMP, in cream-coloured ware; ornamented with embossed mask, perforated work, and twisted handles.

R. 21. CHESTNUT BASKET, with COVER and STAND, in cream-coloured ware, elaborately ornamented with perforated work; two twisted handles, terminating in floriated ornament; the cover surmounted with knob in form of fir-cone.

R. 22. OVAL BASKET, in deep cream-coloured ware, with sides divided into twelve compartments ornamented with perforations; twisted handles terminated in floriated work.

R. 23. OVAL BASKET, in cream-coloured ware, with shaped edge, perforated work and embossed festoons.

R. 24. CUP, in cream-coloured ware, with fluted body and perforated border.

R. 25. CUP, similar to last piece, but with pierced work of a different pattern.

R. 26. PINT MUG, in cream-coloured ware, with four beaded bands bearing traces of gilding; double crossed handle terminated in floriated work.

R. 27. CANDLESTICK, in cream-coloured ware, with pressed flowers and scroll pattern; the square shaft ornamented with pierced work.

R. 28. TEA-KETTLE, STAND, and COVER, in cream-coloured ware; the stand perforated, the cover surmounted by a flower, and the kettle furnished with a double twisted handle terminated in floriated work, and ornamented in black transfer-printing, with birds on one side, and with allegorical subject on the other; inscribed "Let Wisdom unite us."

R. 29. TEA-POT and COVER, in cream-coloured ware, with double twisted handle and floriated knob, ornamented in red and black with a wheatsheaf on one side, inscribed "Success to the Grain Return'd," and with a plough on the other side, inscribed "God speed the Plough."

R. 30. TEA-POT and COVER, in cream-coloured ware, ornamented with orange and brown bands; the body chequered in orange colour; stamped "LEEDS POTTERY."

R. 31. TEA-POT and COVER, with double twisted handle and floriated knob, rudely painted with male and female portraits, one on each side of an orange tree, inscribed "PVOR," and bearing a Dutch legend.

It is believed that these portraits are those of the young Prince William V. of Orange and his wife Sophia Wilhelmina, whom he married in 1797. Similar pieces are sometimes attributed to Turner, of Caughley, Shropshire.

R. 32. CUP and SAUCER, in cream-coloured ware, decorated in same style as No. R. 31.

R. 33. CUP and SAUCER, in cream-coloured ware, ornamented in red transfer-printing, with similar subject to that on R. 28.

R. 34. CUP, in cream-coloured ware, with double crossed handle, painted with flowers in purple.

R. 35. QUART JUG, in cream-coloured ware, with double crossed handle; painted with flowers and inscribed " . . . . Scudmore, 1771."

R. 35*a*. COFFEE-POT and COVER, in cream-coloured ware, with double crossed handle; ornamented in black transfer printing over the glaze with subjects relating to courtship and marriage, treated allegorically; one of the engravings inscribed

"Leeds Pottery."

R. 36. DOUBLE-HANDLED COMPOTIER and DISH, in cream-coloured ware, with pierced diamond-pattern sides, painted with border of leaves in green and black.

R. 36*a*. DOUBLE-HANDLED COMPOTIER and DISH, in white glazed ware, with pierced border, twisted handles, and pressed feather edge, tinted blue; stamped with a star.

R. 37. CIRCULAR CHEESE DISH, mounted on foot, in cream-coloured ware, with pierced border.

R. 38. CRUET-STAND, in cream-coloured ware, with pressed border and pierced sides.

R. 39. MUSTARD-POT, barrel shaped with cover and stand; cream-coloured ware with simple border in brown on canary-yellow ground.

This border is much in Wedgwood's style, but the piece is unmarked.

R. 40. TEA CANISTER, in cream-coloured ware; cylindrical form, with double sides, the outer being ornamented with perforated work.

R. 41. TEA CANISTER, in cream-coloured ware, ornamented with marbling; the border picked out in dark brown.

Presented by J. E. Nightingale, Esq., F.S.A., 1875.

R. 42. TEA-POT, barrel-shaped, in cream-coloured ware, ornamented with marbled surface; impressed mark "LEEDS POTTERY."

The mark on this piece proves that this kind of marbled ware was made at Leeds, and has justified the removal of similar pieces from the Staffordshire series, where they were formerly placed.

R. 43. SUGAR-BASIN and COVER, oval shape, in cream-coloured ware, ornamented with marbled surface; the border with chequer pattern in white and chocolate; the cover surmounted by an acorn; handles broken, and the bases ground down.

Presented by J. E. Nightingale, Esq., F.S.A., 1874.

R. 44. Cup and Saucer, in cream-coloured ware, with broad band of marble pattern; lower part fluted; brown and white chequer pattern running round rim between two gilt lines.

R. 45. Cup in similar ware, with double twisted handle terminating in gilt floriated ornament; broad central band of chocolate-coloured ground, with flowers in oil-gilding; border of brown and white chequer pattern round the rim; lower part of body fluted.

Presented by Prof. A. H. Church, M.A., 1870.

R. 46. Barrel-shaped Mug, in cream-coloured ware, printed in black under the glaze with an Eastern landscape, with cattle in the foreground; stamped "LEEDS POTTERY."

Presented by J. Hawkins, Esq., 1874.

This is an example of pottery still manufactured, probably at Leeds, and is placed here for comparison with the older pieces. Collectors may be misled by the mark, which is similar to that formerly used at Leeds, but is by no means common on the older specimens.

Don Pottery.

[Wall Case XXXVIII.]

Towards the close of the last century the success of the Leeds pottery led to the establishment of several other manufactories in the district. About 1790 Mr. John Green left Leeds, and established a pottery at Swinton, on the River Don. Subsequently he was joined by other members of his family, and the title of the firm became "Greens, Clark, and Co." In 1834 the works were purchased by Mr. Samuel Barker, and are still in the possession of his family. The early pieces, chiefly of cream-coloured ware, are stamped with the name of the pottery in full.

R. 47. Circular Dish, in cream-coloured ware, 12 inches in diameter, with pierced border and pressed wicker pattern in centre; stamped "DON POTTERY."

R. 48. Open-work Basket, of similar style to the last piece, but unmarked.

R. 49. Open-work Basket and Stand, in cream-coloured ware; oval shape, with two small shell-handles, and pierced sides; both basket and stand stamped with a crest, demi-lion rampant, holding flag inscribed "DON," with the word "POTTERY" underneath the crest.

Castleford Pottery.

[Wall Case XXXIX.]

At Castleford, near Leeds, a pottery was established about the year 1790 by Mr. David Dunderdale. At the beginning of the present century the works were conducted by Messrs. D. Dunderdale and Co.; and the pieces of this date are inscribed "D. D. & Co." In 1820 the works were closed, but a part was afterwards taken by some of the workmen. Subsequently they passed into the hands of Messrs. Taylor, Harrison, and Co., who were succeeded, in 1854, by Messrs. Thomas Nicholson and Co.*

R. 50. PLATE, in cream-coloured ware, with simple floral border painted in brown; stamped, "D. D. & CO., CASTLEFORD."

R. 51. TEA-POT and COVER, in fine white ware, ornamented with raised female figures, and divided into compartments by blue lines. Impressed mark,—"D. D. & CO., CASTLEFORD."

R. 52. TEA-POT and COVER in similar ware, ornamented with raised classic groups, and with strong blue lines. Impressed mark obscure.

The body of this piece resembles that of "Pearl Ware."

R. 53. CANDLESTICK, in similar ware, ornamented with blue lines and with floral scroll in red and green entwining the shaft. Unmarked.

FERRYBRIDGE POTTERY.

[Wall Case XXXVIII.]

A pottery was established in 1792 at Ferrybridge by Knottingley, near Pontefract in Yorkshire. Originally conducted under the name of Tomlinson and Co., the firm assumed the style of Wedgwood and Co. on the introduction in 1796 of Ralph Wedgwood, the son of Thomas Wedgwood, who was the partner of the great Josiah Wedgwood, many of whose productions were imitated at this pottery.

R. 54. SMALL TUREEN, COVER, STAND, and LADLE, in cream-coloured ware, with brown edge and simple border in, brown and blue; painted with birds in rich colours; the tureen and cover each stamped "WEDGWOOD & CO."

R. 55. LARGE FIGURE GROUP, 16½ inches high, in coloured glazed earthenware, representing two amorini struggling for a quiver of arrows; impressed mark "WEDGWOOD & CO."

This piece on account of its size, is placed on the top shelf of Case XXXVIII.

R. 56. PLATE in cream-coloured ware, ornamented in black transfer-printing under the glaze with fisherman and girl in centre, and with a running border of vine-leaves and grapes; impressed mark "F. WEDGWOOD," and figure 3.

It is not known to which of the Wedgwood family this mark refers; nor is it certain whether it was made in Yorkshire or in Staffordshire.

R. 57. CIRCULAR PLAQUE, 9 inches in diameter, mounted in black frame; cream-coloured earthenware, coarsely painted with flowers in brilliant colours; stamped on the face "FERRYBRIDGE."

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* "Marks and Monograms on Pottery and Porcelain," by W. Chaffers, F.S.A., 4th ed., 1874, p. 776.

PLACE'S WARE.

[Wall Case XXXIX.]

A fine description of pottery was manufactured at an early date by Mr. Francis Place at the Manor House at York. Mr. Place was a son of Mr. Rowland Place, of Dimsdale, in the county of Durham, and acted as clerk to an attorney in London until 1665. The remainder of his life was apparently devoted to artistic and experimental pursuits. He died in 1728. Ralph Thoresby states, in his *Ducatus Leodiensis*, that Mr. Place discovered an earth well fitted for the manufacture of fine ware, and that "his pottery cost him much money; he attempted it solely from a turn "for experiments, but one Clifton took the hint from him, and made a "fortune by it." One of "Mr. Place's delicate fine mugs," said to have been "equal to true china ware," was in Thoresby's museum, and is described as being "made of English materials in the manor House at York, "by the very ingenious Mr. Francis Place, who presented it to me, with one "of the outer covers [saggers], purposely made to preserve them from the "violence of the fire in baking."

Lord Orford (Horace Walpole) says:—"I have a coffee-cup of his ware; "it is of gray earth, with streaks of black, and not superior to common "earthenware." This cup was sold at Strawberry Hill, and passed into the hands of Mr. A. W. Franks, by whom it was presented, in 1869, to this Museum.

R. 58. SMALL CUP (fig. 156), in thin glazed grayish ware, streaked with black and brown, ornamented with a narrow rib running horizontally round the vessel at about one third from the base. Height, 2½ inches; diameter of rim, 2⅛ inches.

Presented by A. W. Franks, Esq., M.A., F.R.S., F.S.A.

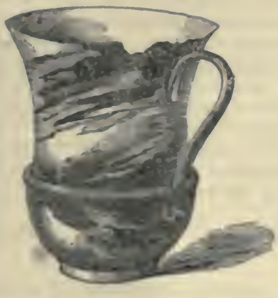
An old pasteboard label, attached to the handle of this cup, is inscribed, probably in Walpole's handwriting, "Mr. Francis Place's China."

R. 59. CUP of similar form, in white ware, embossed with flowers. Purchased of the late Mr. Burns, who regarded it as a specimen of Place's ware, but it is more probably oriental.

R. 60. CUP, similar in form and style to the last piece, but probably not connected with Place's manufacture.

Presented by Henry Willett, Esq., F.G.S.

Fig. 156.



LIVERPOOL POTTERY AND PORCELAIN.

[Wall Case XXXIX.]

In the list of town-dues payable at the port of Liverpool in 1674, Mr. Mayer finds several items showing that the manufacture of pottery was established in the town at that early date. Specimens of Liverpool ware referable to the early part of the eighteenth century are still extant, two specimens of blue-painted coarse ware being dated respectively 1716 and 1722. In a description of the town published in "The Liverpool Memo-" randum Book, or Gentleman's, Merchant's, and Tradesman's Daily Pocket " Journal for the year 1754," it is stated that "the chief manufactures " carried on here are blue and white earthenware, which at present almost " vie with china." Indeed, at one time pottery appears to have been the staple manufacture of the town.

The principal Liverpool potters were Alderman Shaw, James Drinkwater, Richard Chaffers, Seth Pennington, Philip Christian, and Zachariah Barnes. Large punch-bowls of delft ware painted in blue were made by both Shaw and Pennington, and the latter manufactured china resembling oriental porcelain and ornamented with a rich blue colour.

To Mr. John Sadler, of Liverpool, is generally attributed the honour of having discovered the useful art of printing on pottery from copper-plate engravings. He was the son of Mr. Adam Sadler, a printer in Liverpool, who had formerly served as a soldier under the Duke of Marlborough in the wars in the Low Countries. John Sadler carried on the business of an engraver in Harrington Street, and having noticed that some of his waste prints were used by children to stick on to fragments of earthenware obtained from the potteries, he commenced experiments with the view of extending this application to purposes of decoration. With this object he associated himself, about the year 1750, with Mr. Guy Green, who had succeeded to the printing business of Mr. Adam Sadler. It was proposed to apply to the King for a patent, and the documents necessary for this purpose were prepared; but it was afterwards considered desirable to keep the process secret and not to secure patent rights. The documents are now in the possession of Mr. Joseph Mayer.*

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* Mr. Mayer publishes, among other documents, the following affidavit:—

"I, John Sadler, of Liverpool, in the county of Lancaster, printer, and Guy Green, of Liverpoole aforesaid, printer, severally maketh oath, that on Tuesday, the 27th day of July instant, they, these deponents, without the aid or assistance of any other person or persons, did, within the space of six hours, to wit, betwixt the hours of nine in the morning and three in the afternoon of the same day, print upwards of twelve hundred earthenware tiles of different patterns at Liverpoole aforesaid, and which, as the deponents have heard and believe, were more in number and better and neater than one hundred skilful pot painters could have painted in the like space of time in the common and usual way of painting with a pencil; and these deponents say that they have been upwards of seven years in finding out the method of printing tiles, and in making tryals and experiments for that purpose, which they have now, through great pains and expense, brought to perfection.

"(Signed) JOHN SADLER.
"GUY GREEN.

"Taken and sworn at Liverpoole in the County of Lancaster, the second day of August one thousand seven hundred and fifty-six, before Wm. Strathain, a Master Extraordinary in Chancery."

Much of Wedgwood's cream-coloured ware was sent weekly by carrier's waggons from Staffordshire to Liverpool, where it was printed by Sadler and Green, and afterwards returned by the same means to Wedgwood. Even as late as 1794 this arrangement was continued.

On a site formerly occupied by copper works on the south side of the Mersey, near Liverpool, a pottery was started about 1794 by Messrs. Abbey and Graham. Mr. Richard Abbey had been an engraver in the employ of Mr. Sadler, and had afterwards been engaged at potteries in Glasgow and in France. He soon retired from the business, which then passed into the hands of Messrs. Worthington, Humble, and Holland. They engaged a number of operatives from the Staffordshire potteries, and founded the colony called Herculaneum. About the year 1800 the manufacture of china was introduced. In 1806 the works were enlarged, and the number of proprietors increased. The Company was dissolved in 1833, and the property sold. Messrs. Case and Mort then leased the pottery of the purchaser, and carried on business there until 1836, when it passed into the hands of Messrs. Mort and Simpson, who occupied it until 1841. At that date the pottery was discontinued, and the site occupied by the Herculaneum Dock.*

S. 1. PLATE, in white glazed earthenware, ornamented with border of wild roses and buds, painted in proper colours on purple ground, edged in black. Mark, "HERCULANEUM," impressed, and "1653" written in black.

S. 2. SALAD BOWL, double handled, with open-work sides, ornamented in similar style to last piece. Stamped "HERCULANEUM."

Nos. S. 1 and 2 presented by the Rev. Thomas Staniforth, M.A.

S. 3. DESSERT PLATE, in green-glazed ware, with leaves in low relief; stamped "HERCULANEUM."

S. 3*a*. SOUP-PLATE, in white-glazed earthenware ornamented with butterflies and flowers, printed in pale slaty blue of two tints; stamped "HERCULANEUM."

Nos. S. 3, and 3a. presented by Henry Willett, Esq., F.G.S.

S. 4. } PAIR of TOY PLATES;
S. 4*a*. } diameter, 3¾ inches, with pressed edges, ornamented with views in brown transfer-printing. Stamped with the liver.

Presented by A. W. Franks, Esq., M.A., F.R.S.

The bird known as the liver, forming the crest of the borough of Liverpool, was used as a mark at the Herculaneum pottery by Messrs. Case, Mort, and Co.

S. 5. CUP and SAUCER, in Herculaneum porcelain, painted with flowers and birds, and gilt edged; unmarked.

Presented by Miss Ffarington.

S. 6. FRAME of five old STOVE-TILES, each five inches square, in white glazed earthenware, ornamented with figure subjects in early transfer printing over the glaze; all printed in black, excepting the tile marked C, which is printed in red. The following subjects are represented on these slabs:—

A. A young man and woman dancing under trees; a piper seated in the distance; the man in Highland costume, with sword; the woman in dress of the period, with low body and hooped petticoats; the engraving signed, "*J. Sadler, Liverpool.*"

B. An astrologer seated at a table,

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* For the information given in this notice of Liverpool pottery we are indebted to a "History of the Art of Pottery in Liverpool," by Joseph Mayer, F.S.A.

telling the fortunes of two young women; one smiling as she receives a paper inscribed "A brisk Husband and Son," the other weeping, and holding a paper inscribed "Never to be Married."

C. A family party on the village green; a little boy and girl dancing, while the father, seated beneath a tree, plays the flute.

D. Two men with dogs pursuing a monstrous animal, supposing to represent an otter, which is taking to the water.

E. A party of three men seated round a table; two in costume of the period are drinking, while the third, dressed in the style of Dr. Johnson, is filling a long pipe.

S. 6*a*. STOVE-TILE, printed in red, with full-length portrait of Mrs. Mattocks as Princess Catherine; border of lattice-work and stage trophies, with name of the performer inscribed on a ribband.

Presented by Geo. C. Parr, Esq., 1875.

S. 7. PINT MUG, with specimen of early transfer printing in black from a copper plate, over the glaze: subject, the Bucks' Arms; coat of arms with stag in centre and motto, "Freedom with Innocence;" crest, a plough with motto, "Industry produces Wealth;" supporters, two huntsmen, and legend, "We obey;" below, a figure-group inscribed "Unanimity is the Strength of Society;" and on each side allegorical figures; the engraving signed "*Sadler, Liverpool.*"

S. 8. TEA-POT and COVER, in cream-coloured ware, ornamented in transfer-printing in black over the glaze; on one side a portrait of John Wesley, inscribed in a ribband "JOHN WESLEY, M.A., FELLOW OF LINCOLN COLLEGE, OXFORD;" on the reverse the following inscription, surrounded by scroll-work and sacred vignettes: "Let your Conversation be as becometh the Gospel of CHRIST;" on the lid three floating cherubs; the engraving of Wesley signed "*Green, Liverpool.*"

S. 8*a*. BUTTER-BOAT, pressed body, ornamented in blue with flowers and Chinese subjects in panels; marked in blue under the glaze "P."

It has been suggested, but probably on insufficient grounds, that this mark was intended for the initial of Pennington, a well-known Liverpool potter.

S. 9. PUNCH-BOWL, of unusually large size, 20½ ins. diameter; delft ware, ornamented with military trophies on the outside, and a three-masted man-of-war on the inside painted in blue, with sea coloured green, and with red on the union-jack, ensign, and pennant.

This large specimen is placed on the top shelf of Case XXXIX. The trophies are very similar to those on a bowl figured by Mr. Mayer,* said to have been made at Seth Pennington's and painted by John Robinson. The succeeding specimens are placed on the bottom shelves of Cases XXXVIII. and XXXIX.

S. 10. PUNCH-BOWL, in delft ware, 10¼ ins. diameter, painted in blue with scrolls on the outside, and the following verses on the inside:

"John Udy of Luxillion
"his tin was so fine
"it glidered this punch bowl
"and made it to shine
"pray fill it with punch
"lett the tinners sitt round
"they never will budge
"till the bottom they sound.
"1731."

These verses have allusion to the use of Cornish tin, which, in the form of binoxide, is employed in the preparation of the opaque white enamel of delft ware. *Udy* is a common Cornish name, and *Luxillion* is a parish about three miles from Lostwithiel. The old verb *glidder*, which occurs in the third line, signifies "to glaze;" thus in *The Devil is an Asse* Ben Johnson writes, "keep it in your galley-pot well *gliddered.*"

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* "History of the Art of Pottery in Liverpool," 1855, p. 22.

S. 11. Punch-bowl, in delft ware, 6¾ inches diameter; painted with blue border and inscription, "Success to Trade."

S. 12. Punch-bowl, 7¾ inches diameter, painted in blue outside with fishing scene in Chinese style, and inside with inscription, "Wilkes and Liberty."

S. 13. Punch-bowl, in delft ware, painted in blue, red, yellow, and green; 12 inches diameter; flowers on the inside, and armorial bearings with motto, "God grant Unity," on the outside; inscription on the bottom in blue, "W. R. H., 1749."

S. 14. Punch-bowl, in delft ware, 14 inches in diameter; ornamented with flowers painted in blue, and inscription, "Parliment (*sic*) Bowl, free without Excise, 1736."

[On top shelf, Case XXXIX.]

S. 15. Punch-bowl, in delft ware, 9½ inches diameter, painted in blue inside, with a three-masted man-of-war in sail, inscribed, "Success to the Friend-ship, 1766."

S. 16. Punch-bowl, in delft ware, painted with flowers in green, blue, purple, and yellow, in panels on mottled purple ground; bottom of the bowl inscribed inside in blue "One Bowle more & then."

Miscellaneous pieces of old English Pottery.

The shelf below the Leeds and Liverpool ware is occupied by a collection of miscellaneous specimens of old English pottery, of which but few are marked. They are mostly of Staffordshire ware, but some may probably be attributed to Newcastle. Those which present examples of early transfer-printing were in all likelihood decorated at Liverpool. It should be understood, however, that it is merely convenience of space which has led to the selection of this position, and that it is not by any means to be supposed that the specimens here collected have any connexion with the Liverpool pottery, except where this is distinctly specified or suggested.

S. 17. Quart Mug, in cream-coloured ware, with representation of a toad inside to surprise the drinker; the outside decorated with the following legend painted in black, and surrounded by a rude floral border in colours:—

"Tho' malt and venom
"Seem united
"Don't break my pot
"Nor be affrighted."

Compare the Newcastle frog mugs, T. 3 and 4 (p. 251).

S. 18. Pint Jug, in cream-coloured ware, painted with border of strawberries running round the neck, and ornamented with two views neatly painted in oval medallions pendant from a wreath, and with cypher "W. F." inscribed in a shield decorated with landscape in brown monochrome.

Are these the initials of the Bristol painter, William Fifield? If so, the piece should no doubt be attributed to the Bristol potteries. The figures 1794 are painted on the bottom of this jug.

S. 19. Pint Jug and Cover, in cream-coloured ware, ornamented in early black transfer-printing, with two scenes of country courtship.

There can be little doubt from the character of the printing on this piece, that it was executed at Liverpool.

S. 20. Quart Mug, in coarse cream-coloured ware, ornamented in black transfer-printing, inscribed, "Jameson," and rudely painted in red, yellow, and green; subject, "Tythe in kind, or the Sow's Revenge;" a clergyman collecting tithes attacked by a sow in a pigstye to the amusement of the farmer's family, and crying,—

"The fattest Pig it is my due
"Oh! Save me from the Wicked Sow."

S. 21. Quart Mug, printed in black, with farmer and wife offering babe to the vicar, with doggrel entitled "The Tithe Pig."

"In Country Village lives a Vicar
"Fond as all are of Tithes and Liquor
"To Mirth his Ears are seldom shut
"He'll Crack a Joke and Laugh at Smut
"But when his Tithes he gathers in
"True Parson then no Coin no Grin
"On fish on flesh on Bird on Beast
"Mike lays hold the Churlish Priest.
"Hob's Wife and Sow as Gossips tell
"Both at a time in pieces fell
"The Parson comes the Pig he claims
"And the good Wife with Taunts inflames
"But she quite Arch bow'd low and Smil'd.
"Kept back the Pig and held the Child
"The Priest look'd gruff the Wife looked big
"Z——ds Sr. quoth She no Child no Pig."

S. 22. Pint Mug, barrel shaped, in common ware, printed in black and rudely painted in colours with drinking party, inscribed, "*J. Ansley, Lane End;*" ornamented with the following verses, from the "School for Scandal":—

"*The General Toast.*

"1.

"Here's to the maid of bashful fifteen
"Likewise to the matron of Fifty
"Hear's (*sic*) to the bold and extravagant Queen
"And here's to the housewife thats thrifty.
"Let the toast pass, drink to the lass
'I'll warrant she'll prove an excuse for the glass.

"2.

"Here's to the maiden whose dimples I prize
"Likewise to her that has none sir
"Here's to the maid with a pair of black eyes
"And here's to her thats but one sir.
"Let the toast, &c.

"3.

"Here's to the maid with a bosom of snow
"And to her thats as brown as a berry
"Here's to the wife with a face full of woe
"And here's to the girl that is merry.
"Let the toast, &c.

"4.

"Let her be Clumsy or let her be slim
"Young or antiant I care not a feather
"So fill a pint Bumper boys up to the brim
"And e'en let us toast them together.
"Let the toast pass Drink to the lass
"I'll warrant she'll prove an excuse for the glass."

S. 23. Pint Mug in coarse ware, coated outside with orange-coloured enamel, and ornamented in relief with two full-length portraits of Lord Rodney and oval medallion with ship, laid on in cream-coloured paste tinted green.

The vessel represented on this mug is De Grasse's flag-ship *Ville-de-Paris*, which was taken by Rodney in 1782. The same event is celebrated in Derby china by the well-known "Rodney Jug."

S. 24. Quart Jug, in white ware with crimson border, ornamented in purple transfer-printing over the glaze with a three-masted man-of-war in full sail on one side, and on the other side a copy of West's picture of the Death of General Wolfe, 1759.

Probably made by Thomas Wolfe, of Stoke-upon-Trent, who claimed relationship with the General.

S. 25. Quart Jug, in white ware, with blue band round the neck; the body ornamented with transfer-printing in red outline painted in colours.

On one side a hay-making scene; on the other side John Bull seated on a column inscribed "The British Constitution," and looking across the Channel at Napoleon, who is weeping at the loss of the flotilla and exclaiming, "O! my poor "Crazy Gun Boats, why did I venture so "far from home;" while the Englishman cries, "I Told you they would be all "swamp'd, but you would be so d——d "Obstinate;" the whole inscribed, 'Patience on a Monument smiling at "Grief!!" with the following distich:—

"The Mighty Chief with fifty thousand
Men
"March'd to the coast, and March'd
back again
"Ha! Ha! Ha!"

S. 26. PINT JUG, in common white ware, ornamented in relief with naval portraits rudely coloured; on one side Admiral Nelson and on the other side Captain Berry.

S. 27. PINT FLASK, in common ware, ornamented on each side with a coloured full-length portrait of Admiral Nelson in relief, surrounded by flowers in blue transfer-printing; inscribed at the bottom in blue "D. R."

S. 28. QUART JUG, printed in blue with portrait of Nelson and figure of the "Victory," inscribed with Lord Nelson's titles.

S. 29. MUG, in drab ware, with blue rim, ornamented with raised figures in white; the Duke of Wellington on horseback greeted by his soldiers, bearing a ribband inscribed VITTORIA; the other figures represent soldiers with cannon and standard, and a large chest marked "Plunder;" the handle of mug terminates in a lion's head.

S. 30. QUART MUG, printed in black with Duncan's ship "Venerable" in full sail towing De Winter's ship "Vrijheid," inscribed with the following verse:—

"Vain are the Boasts of Belgick's sons
"When faced by British ships and guns;
"Tho' de Winter does in Autumn come
"Brave DUNCAN brings his harvest
home."

Presented by A. W. Franks, Esq., M.A., F.R.S.

S. 31. HALF-PINT MUG, in cream ware, thumb-painted with blotches of white and black on orange-brown ground.

Presented by Henry Willett, Esq., F.G.S., 1875.

S. 31. PINT MUG, printed in black with scene of Louis XVI. taking leave of his family on the morning of his execution; the engraving signed, "Fletcher & Co., Shelton."

Thomas Fletcher is known to have been in business at Shelton in the early part of this century, not as a potter, but as a "black printer and enameller."

Louis XVI. was executed on 21st January 1793.

The engraving bears the following verses:—

"Farewell Queen, Children, Sister,
Louis cries,
"Abate your grief & dry those
streaming Eyes,
"And O! my Son if e'er the Crown
you wear,
"Think of my fate, & steer your
course with care."

S. 32. PINT MUG, printed in brown with the "Farmer's Arms," and mottoes, "All our Trust is in God," and "Industry produceth Wealth," with following verses:—

"May the Mighty and Great
"Roll in Splendor and State
"I envy them not I declare it;
"I eat my own Lamb,
"My Chicken and Ham
"I shear my own Sheep and I wear it;
"So you jolly Boys now
"Here's God speed the Plough
"Long life and content to the Farmer."

S. 33. PINT MUG, printed in black with "Baker's Arms," and motto "Praise God for all;" the engraving signed, "*S. Daniel, Stoke.*"

It appears that Sampson Daniel, of Stoke, though connected with a family of potters, was not himself a manufacturer. As his name, however, is printed on the engraving, it seems likely that the design may be attributed to him.

S. 34. PINT MUG, printed in black with view of the Thames Tunnel and portrait of the engineer, Sir I. M. Brunel, F.R.S.

The Thames Tunnel was opened on March 25, 1843.

S. 35. **Large Jug**, 9 inches high, in creamed-coloured earthenware; ornamented in front with the initials "*T. E.*" painted in brown, and surrounded by a wreath; on one side a ship in sail printed in black and touched with colours; and on the other side an allegorical subject representing the four quarters of the globe presenting offerings to Britannia, who holds the cap of liberty; inscription "Commerce Revived."

[On top shelf, Wall Case XXXVIII.]

S. 36. **Jug** of unusually large size, 13 inches high, in cream-coloured earthenware, ornamented in front with the initials "A. H.," painted in black, and surrounded by a garland; on one side an English landscape printed in black, and on the other side the Blacksmith's arms printed in black, with motto, "By Hammer and Hand, all Arts do stand."

[On top shelf, Wall Case XXXVIII.]

S. 37. **Tea-pot** of unusually large size; height, 12 inches; diameter of body, 10 inches; cream-coloured earthenware painted in blue, with flowers and inscription, "George Wilson, 1778."

[On top shelf, Wall Case, XXXIX.]

S. 38. **Jug** of unusually large size, 10½ inches high, in cream-coloured earthenware with black edge; ornamented with caricatures. Outlined in brown transfer-printing over the glaze, and rudely coloured by hand.

On front a view of the burning of Moscow, from the Kremlin, Sept. 14, 1812; inscribed in the clouds of smoke, "Hurrah "Your Serene Highness:" on one side of the jug a figure of a Russian soldier returning home with French pigmy-soldiers impaled on his bayonet and strung up on his gun, preceded by a little boy astride of the French eagle; inscribed in English and Russian, "A Russian boor returning "from his field sports:" on the opposite side of the jug a Russian soldier hewing down a Frenchman with a hatchet, inscribed "Specimen of Russian chopping-blocks;" below this scene an inscription in English and Russian, "So you'r the last! says this "brave honest Man, Now Nap. return to "Russia if you can;" around the neck of the jug the following inscriptions, "Europe "preserved, September 14th, 1812," and "Hourrah Your Serene Highness."

[On top shelf, Wall Case XXXVII.]

Newcastle and Sunderland Pottery, &c.

[Wall Cases XL. to XLIV.]

A considerable manufacture of common earthenware has long been carried on in the North of England, especially in the neighbourhood of Newcastle and of Sunderland. As early as 1730 or 1740 the manufacture of white earthenware was introduced into the district by Mr. Warburton at the Carrs Hill pottery, near Gateshead, on the Durham side of the Tyne; a pottery which, after having been successfully conducted for seventy years, gradually declined and was closed in 1817. About 1755 Mr. Byers established works at Newbottle, and in 1762 Messrs. Christopher Thompson and John Maling erected potteries at North Hylton, near Sunderland. In 1817 Mr. Robert Maling removed the business from Hylton to the Tyne. Messrs. Dawson established a pottery at Hylton in 1800, and Messrs. Phillips have also had works at this locality. At Southwick, near Sunderland, Scott and Co.

erected potteries in 1789, and Moore and Co. in 1803. About the beginning of the present century Messrs. Dixon, Austin, and Co., and Messrs. Phillips, had potteries in the neighbourhood of Sunderland.

At St. Anthony's near Newcastle-upon-Tyne, potteries were established between the years 1780 and 1790, and many pieces from these works bear the mark of Sewell and Donkin. St. Peter's pottery, near Newcastle, was built by Thomas Fell and Co. in 1817.

Ten years ago there were about twenty-five potteries on the Tyne, the Wear, and the Tees, producing earthenware of the annual value of 190,000*l*.[*]

T. 1. Fruit-dish and Stand, in cream-coloured ware, with pierced border and embossed wicker pattern, having group of fruit in centre; impressed mark, "FELL, NEWCASTLE;" the latter word in a semi-circle with number "12" stamped beneath.

T. 1*a*. Fruit Dish, in white glazed earthenware, with shaped edge, rudely painted in centre with English landscape in oval panel, on apple-green ground sprinkled with coloured stars and ornamented with grapes and vine in relief and coloured; stamped, "FELL, NEWCASTLE."

T. 2. Fruit Basket, in cream-coloured ware, with impressed wicker pattern at the bottom and open-work sides of plaited twigs; impressed mark, "FELL."

T. 2*a*. Figure of a lamb couchant in white glazed pottery tinted in proper colours; impressed mark, "FELL.'

T. 3. Frog mug, printed in black with monument and trophies in memory of Lord Nelson; inscribed "Newcastle pottery."

Presented by G. G. Francis, Esq., F.S.A.

A frog or toad is represented climing up the inside of the vessel, so that as the liquid is drunk the creature appears to be leaping into the drinker's mouth. Compare No. S. 17.

The engraving of Nelson's trophies bears the following memorial verses:—

" Remember whilst his mortal part has rest
" Th' immortal lives in every Briton's breast;
" Tho' short his Span of Life, recording fame
" Inscribes a deathless Volume to his Name;
" Mourn not for me, 'tis vain, chase grief away,
" Compleat (*sic*) my work and crown the glorious day;
" Behold! 'tis done, his parting spirit flew,
" And lighting rests, brave Collingwood, with you."

T. 4. Frog Mug, ornamented with border of purple metallic lustre, surrounding the following verses printed in brown beneath a ship:

" Thou noble bark of brightest fame,
" That bear'st proud England's honoured name,
" Right welcome home once more!
" Welcome thou gallant little sail
" In England's name I bid the (*sic*) hail!
" And welcome to her shore."

T. 5. Pint Mug printed in black, with "An East View of the Iron "Bridge Over the Wear, near Sun-"derland; Foundation stone laid by "R. Burdon, M.P., Sept. 24th, 93;" inscribed "Edwd. Barker."

The celebrated cast-iron bridge over the Wear, uniting Monkswearmouth and Bishopswearmouth, was commenced in 1793 and completed in 1796. It consists of a single arch of the enormous span of 236 feet 8 inches, weighing 260 tons, and rising to the height of about 100 feet above the level of the water.

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[*] Mr. Christopher Thompson Maling's notice in "The Industrial Resources of the "District of the Three Northern Rivers, the Tyne, Wear, and Tees" (2nd ed., 1864, p. 306), to which we are indebted for many of the facts stated above.

T. *5a.* CREAM EWER, in black ware ornamented with classic figure-subjects in relief, in Wedgwood's style; impressed mark "BARKER."

As there were several Staffordshire potters of this name it is probable that this piece may be attributed to some of them. It is placed here simply as bearing the same name as that on the preceding piece, which is generally regarded as a Newcastle mug.

T. 6. LARGE JUG, ornamented with purple metallic lustre printed in black transfer and rudely coloured; on one side the "Northumberland 74," on the other, "A "south-east view of the Iron "Bridge over the Wear, near "Sunderland," inscribed, "J. PHILLIPS, HYLTON POTTERY;" on front the following verses, surrounded by a garland of rudely-painted flowers:—

"*Forget me not.*

"The sailor tost in stormy seas,
"Though far his bark may roam,
"Still hears a voice in every breeze
"That wakens thoughts of home:
"He thinks upon his distant friends
"His wife, his humble cot;
"And from his inmost heart ascends
"The prayer Forget me not!
"*Barten.*"

T. 7. EARTHENWARE BOWL, ornamented with nautical subjects in transfer-printing, rudely coloured over the glaze and bedaubed with purple metallic lustre; on the outside the mariner's compass, bridge over the Wear, and same verses as on preceding piece; on inside, the mariner's compass, Sailor's Farewell, and ship with couplet as on T. 8; in centre the following verses:—

"Glide on my bark, the summer's tide,
"Is gently flowing by thy side;
"Around thy prow the waters bright,
"In circling rounds of broken light,
"Are glit'ring as if Ocean gave,
"Her countless gems to deck the wave."

T. 8. EARTHENWARE SLAB, printed in black and rudely coloured; the border in form of a frame painted with purple metallic lustre; subject in centre, a man-of-war in full sail, inscribed,—

"May Peace and Plenty on our Nation Smile
"And Trade with Commerce bless the British Isle."

T. 9. LARGE JUG, similar to T. 6; ornamented with black transfer-printing, rudely coloured, and enriched with purple metallic lustre; on front the verses, "Forget me not," surrounded by a garland; on one side a view of the cast-iron bridge over the Wear, and on the other side the Farmer's Arms, and inscription, "DIXON, AUSTIN & CO., SUNDERLAND."

T. 10. FIGURE, representing Winter, coarsely modelled and painted; height, 9¼ inches; impressed mark, "DIXON, AUSTIN, & CO."

T. 11. LARGE JUG, in white-glazed earthenware, ornamented with raised Bacchanalian figures on body, and border of vine round the neck, coarsely coloured and enriched with purple metallic lustre; impressed mark, "SEWELL."

T. 12. OPEN-WORK FRUIT BASKET, in cream-coloured ware, embossed with wicker-pattern; impressed mark, "SEWELL & DONKIN."

T. 13. OVAL FRUIT BASKET, in cream-coloured ware, with pierced border; impressed mark, "SEWELLS & DONKIN."

T. 14. PLATE, in cream-coloured ware, coarsely painted with flowers, and inscribed, "Jan Oordwijn Wijntje iding Dunning, 1819;" stamped, "SEWELLS & DONKIN."

This plate appears to have been made for the Dutch market, or to have been painted in Holland. It resembles the well-known Turner plates, which have Dutch subjects upon them. Compare G. 412, p. 154.

T. 15. CRUET STAND, 11 inches high, in cream-coloured ware, with central shaft in form of a tree-trunk surmounted by a bird; furnished with two pepper casters and three bottles; impressed mark, "SEWELLS & CO."

T. 16. CUP and SAUCER, in white ware, printed with flowers in brown under the glaze, and coarsely coloured with red and yellow over the glaze; impressed mark on saucer, "PATTERSON & CO., TYNE POTTERY."

T. 17. CUP and SAUCER, in white-glazed earthenware, with border of leaves in coppery lustre on blue ground; impressed mark, "SCOTT."

T. 18. CUP and SAUCER, in white-glazed earthenware, with blue edge, ornamented with stipple engraving in black, representing female and child playing with dogs; the cup stamped, "DAWSON & CO."

Presented by Dr. Hugh Diamond, F.S.A., 1874.

T. 19. PLATE, in white ware, with pressed border of flower-heads; the centre printed in black under the glaze, with hay-making scene, inscribed "Summer;" impressed mark, "MOORE & CO."

T. 19*a*. } PAIR of oval PLAQUES,
T. 19*b*. } in white earthenware, with raised figures of male heads, and baskets of flowers, coarsely coloured blue, green, orange, and brown; perforated for suspension.

T. 20. FRUIT BASKET and STAND in cream-coloured ware, with pierced border and embossed sides; impressed mark, "W. S. & CO., QUEEN'S WARE, STOCKTON."

The initials on this piece are those of William Smith and Co., of Stockton-on-Tees.

T. 21. OVAL DISH, in cream-coloured ware, with pressed pattern and pierced border; stamped, "W. S. & CO.'S, WEDGWOOD."

Presented by Captain Wundt.

In 1848 an injunction was applied for by Messrs. Wedgwood, of Etruria, to restrain some of the Stockton potters from using such marks as this.

T. 22. SMALL DISH, in common white ware, printed in blue, with an English landscape; impressed mark, an anchor and "MIDDLESBRO POTTERY."

This pottery is at Middlesbro'-on-Tees, in Yorkshire.

NOTTINGHAM EARTHENWARE, &c.

[Wall Case XL.]

It is known that the manufacture of certain kinds of pottery, especially a brown-glazed earthenware, was long carried on in the town of Nottingham, and was probably not abandoned until the beginning of the present century. In a list of trades and employments exercised in the town, with the number of masters in each, made in 1641, one potter is mentioned, and in a similar list for 1739 two potters appear. About the middle of the last century the trade became more active, and Dr. Deering in his *Historical Account of Nottingham* (1751), mentions that the town sends down the river (Trent) coals, lead, timber, corn, wool, and *potter's ware*. Under the year 1757 in Bailey's *Annals of Nottinghamshire*, we read that, "Mr. Morley was a manufacturer of brown earthenware, carrying "on his works in the lower part of Beck Street, on the road to St. Ann's "Well; and by this business he amassed a very considerable fortune. "This ware was at one time of great celebrity throughout the whole of the

“ Midland Counties, especially its famous brown mugs for the use of public-“ houses; and it is remarkable that though these works have been dis-“ continued now for a hundred years,* the appellation of *Nottingham ware* “ is still, in many remote villages, attached to the better and more highly “ finished class of brown earthenware pots of every description.” No fewer than twelve pot makers are mentioned in “An exact list of the “ Burgesses and Freeholders of the town and county of the town of “ Nottingham . . . . who polled . . . . at the election of “ two Burgesses to serve in Parliament,” in 1774, but in a similar list for 1803 only one potter is named. The cause of the decline of the trade was the competition of the Staffordshire manufacturers. Thus, Blackner in his *History of Nottingham*, published in 1815, says that “there were “ likewise two potteries within the last thirty years . . . . But the “ clay was principally brought from a considerable distance, which added “ so much to the cost of the pots as to prevent the proprietors maintaining “ a competition with the Staffordshire dealers.”

Mr. Morley's pottery was situated in Mug House Yard, Mug House Lane, Beck Street, and the other works mentioned by Blackner were on the east side of what is now Milton Street.

It is believed that some part of the clay used for the brown ware was obtained from the neighbourhood of Hucknall Torkard, in Nottinghamshire, while a yellow clay was procured from Staffordshire.†

U. 1. Christening Bowl, 13 inches in diameter, in brown-glazed earthenware, ornamented with a double incised band round the rim, and inscription in cursive characters, “*Nouember* 20, 1726.”

Presented by Miss Lakin, of Nottingham.

U. 2. Punch Bowl, of unusually large size, 22 inches in diameter, in brown-glazed earthenware, with incised inscription in cursive characters, “*Old England for Ever*, 1750.”

U. 3. Large Mug, in brown earthenware with glaze of metallic lustre; ornamented with stamped flowers laid on in relief, and incised inscription in cursive characters round the rim, “*Made at Nottingham ye 17th Day of August, A.D.* 1771.”

Presented by Edmund Percy, Esq., of Nottingham.

U. 4. Large Mug, in brown stoneware, the upper part being much darker than the lower; ornamented with rude figures laid on in low relief, representing stag hunting, shooting, wrestling, and other country sports; with name and date scratched in paste, thus:—

“Edw. Slark, 1727.”

U. 5. Tobacco Jar and Cover, in form of a bear clasping her cub: brown-glazed earthenware, slightly lustrous; the coat roughened by fragments of potsherd sprinkled over the surface.

U. 6. Flask in brown stoneware, in form of figure of Daniel O'Connell, holding a scroll inscribed "Irish Reform Cordial;" stamped on the back "Bourne's Potteries, Denby and Codnor Park, Derbyshire."

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* This is clearly an error. Bailey's work was published in 1855, and there is evidence to show that the manufacture of pottery in Nottingham was not discontinued until, at the very earliest, the latter end of the last century.

† For much of the information on Nottingham ware we are indebted to Mr. G. B. Rothera and Mr. Briscoe, of Nottingham.

U. 6*a*. **Small Jug**, in brown mottled stoneware, ornamented with coarse figures laid on in relief; stamped "Bourne's Warranted."

Lowesby Pottery.

[Wall Case XLI.]

A small pottery was established at Lowesby, in Leicestershire, by Sir F. G. Fowke about the year 1835, but has long been discontinued. A red paste was manufactured from the lias clays of the district, and some of the pottery was modelled after Etruscan forms.

U. 7. **Small Gourd-shaped Bottle**, in red terra cotta, with flowers and insects enamelled in colours and gilt. Unmarked.

Presented by W. Latham, Esq., of Melton Mowbray.

U. 8. **Flower Pot**, in red ware, ornamented with impressed bands, and painted with stars and radiated discs in black and white. Impressed mark, "LOWESBY," surmounted by fleur-de-lis.

U. 9. **Flower-pot** and **Stand**, in form of a vase; red ware painted in black so as to leave Greek pattern in red on a black ground; vase stamped LOWESBY, and with fleur-de-lis; the stand stamped with name only.

"Yarmouth Pottery," &c.

[Wall Case XLI.]

It is known that about the end of the last century a potter named Absolon had works at a place still known as "The Ovens" at Yarmouth. It appears, however, that no potting was ever done there, but that the business consisted simply in decorating ware manufactured elsewhere, and firing the colours in a gloss-kiln. The mark of "*Absolon Yarm^o*" is found on pieces stamped with an arrow, but it is at present uncertain to what factory the mark of the arrow should be attributed.

V. 1. **Figure** of a female with bird perched on her right hand; white glazed earthenware, coloured; height, 11 inches. Mark, an impressed arrow.

V. 2. **Dessert-dish** on foot, with gilt rim and painted iris and other flowers, having their names on the back written in red, partly worn off. Impressed mark, an arrow.

V. 3. **Dish**, with brown edge, painted with flowers, having name on back in red, partly obliterated. Mark, an impressed arrow.

V. 4. **Plate**, with brown edge, painted with the "Round-leaved Cyclamen," having name on back in red. Stamped S.

V. 5. **Plate**, in cream-coloured ware, with double edge in brown, painted with "Dog's-tooth Violet," having name written on back in red; unmarked.

From the Bandinel collection.—Presented by Dr. Page.

This plate, which has been attributed by some authorities to Wedgwood, is very similar to those in a service belonging to Col. Sykes, M.P., some of which are marked "Wigan Pottery."

V. 6. Plate, in cream-coloured ware, edged with platinum-lustre, and painted with the "Annual Lavataria," having the name written on the reverse in red; unmarked.

V. 7. Flower-pot and Stand, with applied ring handles, in white ware glazed on the inside only; the outside ornamented in oil-gilding with horizontal bands and monogram "R.M.C.;" both pot and stand stamped "WEDGWOOD," and the flower-pot also marked in brown,—

"Absolon, Ymth. No. 25."

Presented by T. Thornhill, Esq., 1872.

This interesting piece shows clearly that Absolon imported ware in the white from the Staffordshire potteries. Other pieces bearing Absolon's signature are also stamped with the name of Turner, a well-known Staffordshire potter.

V. 7*a*. Honey-pot and Cover, in form of a bee-hive, surmounted by a crown; cream-coloured ware, with the hive, raised flowers and bees painted in proper colours; stamped with an arrow, and the words "UNION HONEY POT."

Presented by Henry Willett, Esq., F.G.S., 1874.

Lowestoft Porcelain and Pottery.

[Wall Case XLII.]

According to Gillingham's "History of Lowestoft," written in 1790, the manufacture of porcelain was attempted in the year 1756 by Mr. Hewlin Luson, of Gunton Hall, near Lowestoft. Although his experiments were frustrated, a porcelain factory was established at Lowestoft in the following year by Messrs. Walker, Browne, Aldred, and Rickman. A soft paste was first made, but it is asserted that about 1780 the manufacture of a hard body was introduced. It has been considered that much of the so-called Lowestoft china is merely Oriental porcelain possibly decorated at Lowestoft, but Mr. Chaffers maintains that the hard paste was made at the works, and that nothing passed from the factory but what had been manufactured there.*

The period of greatest prosperity of the Lowestoft works was between 1770 and 1800. In the year 1802 the works were abandoned, and the stock sold, but a portion of the factory is still standing.

From certain pieces of delft ware bearing inscriptions and dates as early as 1752, it appears probable that before the manufacture of porcelain was introduced common pottery had been manufactured at Lowestoft, or at least that delft ware had been painted in this locality.

It should be understood that several of the following pieces are exhibited as "Lowestoft china" simply in deference to the opinions of certain collectors, and not as authenticated specimens.

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* "Marks and Monograms on Pottery and Porcelain," by W. Chaffers, F.S.A., 4th ed., 1874, p. 810.

V. 8. Delft Plate, with fluted border painted in white; centre painted with Chinese fishing scene in blue, brown, and yellow. Reverse inscribed in blue under the glaze, "Cornelius Dixon, Norwich, 1760."

Presented by the Rev. S. B. Turner.

V. 8a. Plate, with gilt rim edged in brown; border painted with flowers in *bianco sopra bianco*; centre enamelled with coat of arms and crest of *agnus Dei*.

V. 8b. Soup-plate, gilt edged; border painted with flowers; centre painted and gilt with armorial bearings.

Presented by Mrs. Percy.

V. 9. Dish, with gilt rim edged in red; border painted with flowers; centre painted and gilt with armorial bearings.

V. 10. Basin, painted inside with border of lake scale-pattern, and outside with flowers and birds in circular medallions.

V. 11. Cup and Saucer, painted in blue and red, with flowers, birds, and insects, touched with gold.

V. 12. Cup and Saucer, with gold border edged in red, painted and gilt with trophies and vine, from which armorial devices are suspended.

V. 13. Coffee-cup, painted and gilt with armorial bearings, and motto, "Le Grand."

V. 14. Dish, with scroll border in blue and red, touched with gold.

V. 15. Quart Mug, with double twisted handle terminating in floriated ornament; painted in brown and black with view of Aberdeen in oval medallion with gilt inscription, "The Commercial Banking Company of Aberdeen;" on each side of medallion a sprig of flowers in brown and gold; round the rim a deep blue border edged in gold; the handles painted blue and touched with gold.

V. 16. } Two Plates, orna-
V. 17. } mented with borders in brown and gold, and with views of a Suffolk village and river, painted in sepia in a circular panel in centre of each plate.

Presented by John Hawkins, Esq., 1874.

Wrotham Pottery.

[Wall Case XLIV.]

Coarse earthenware was made at Wrotham, in Kent, certainly towards the close and probably as early as the middle of the seventeenth century. A dish in the British Museum is dated "Wrotham, 1699;" while a piece in Mr. C. W. Reynolds' collection, which had long been in the possession of a Kentish family, and was traditionally referred to Wrotham, bears the date 1668.

In connexion with the history of pottery in Kent, it may be mentioned that records are extant showing that as early as 1582 a Dutch potter was settled at Sandwich.

W. 1. Double-handled Posset-pot in coarse red earthenware, with raised ornaments and inscription laid on in yellow slip before glazing; inscribed in rude characters "WROTHAM," with initials "T. E." and date 1703.

Coll. Marryat.

A very similar, though smaller tyg of Wrotham ware in Mr. Willett's Collection is dated 1699. Mr. Willett also possesses an unusually large Wrotham tyg, formerly in the Chichester Museum, which bears the name of the locality, but is without date.

Although W. 1 is the only authenticated piece of Wrotham ware at present in the Museum Collection, it should be remarked that a few of the coarse specimens placed in the early Staffordshire series, such as G. 18 and 19 (p. 108), may possibly be attributed to Wrotham; in fact the distinctions between pieces made in the two localities are by no means easily determined.

CADBOROUGH POTTERY.

[Wall Case XLIV.]

At Cadborough, near Rye, in Sussex, a pottery was established about the beginning of the present century, and the manufacture of a red ware is still carried on to a limited extent by Mr. Mitchell. The coarse red body is coated with a brillant lead glaze, producing a mottled green or brown surface.

Mr. H. Willett, of Brighton, possesses several pieces of Rye pottery, inscribed with the name of the locality and dated.

W. 2. CYLINDRICAL MUG, in red glazed ware, ornamented with yellow stars, and inscription "E.* C.* FE-" BUARY (*sic.*)* 18* 1811*;" the figure 4 rudely scratched in the base.

Presented by H. Willett, Esq., F.G.S.

A specimen of similar ware in Mr. Willett's Collection is inscribed "Rye Pottery."

W. 3. SMALL VASE, six inches high, in red ware, with mottled green glaze.

Presented by the late Albert Way, Esq., M.A., F.S.A.

W. 4. "SUSSEX PIG," a vessel in brown glazed earthenware, having the form of a pig with moveable head serving as a drinking cup.

Presented by W. Chaffers, Esq., F.S.A.

The "Sussex pig" is a quaint vessel said to be still used at weddings in that county. The body standing on end forms an ale-jug, while each guest drinks a *hogshead* of beer to the health of the bride. This brown mottled ware has been thought to bear some resemblance to Rockingham ware.

BRANKSEA POTTERY.

[Wall Case XLIV.]

About eighteen years ago an attempt was made to establish a pottery on Branksea Island, opposite Poole, on the coast of Dorsetshire. This attempt was prompted by the occurrence of clays in the Bagshot beds of Branksea, similar to those at Poole. It is believed, however, that after a few trials the project was abandoned.

W. 5. SMALL PITCHER, in brown-glazed earthenware, with sample of the clay of Branksea Island, from which the ware was manufactured.

Presented by Major Waugh, of Branksea.

WATCOMBE TERRA COTTA.

[Wall Cases XL. to XLII.]

The origin of the terra-cotta works at Watcombe, near Torquay, is due to the discovery a few years ago of a deposit of fine red clay during some excavations near Watcombe House, the residence of Mr. G. J. Allen. As the clay was found to be admirably adapted to the purposes of modelling, a company was formed for its utilization; and the manufacture of terra-cotta was started under the management of Mr. C. Brock. The works have been conducted with great spirit; and the fine examples of the ware which have been presented to the Museum by the Company sufficiently attest the taste and skill which have been brought to bear upon the manufacture. The pieces issuing from these works are marked with the words, "Watcombe, Torquay," either impressed or printed in black.

W. 6. **RED CLAY**, from Watcombe, near Torquay, Devonshire; used for the local manufacture of terra-cotta.

The following analysis of this clay has been made in Dr. Percy's laboratory, by Mr. J. W. Ward:—

Silica - -	57·83
Alumina - -	20·55
Peroxide of iron -	7·75
Lime - -	1·68
Magnesia - -	0·97
Peroxide of manganese - -	trace.
Carbonic acid -	0·90
Potash - -	3·87
Soda - -	0·56
Phosphoric acid -	trace.
Water, hygroscopic	2·13
" combined -	4·39
	100·63

W. 7. **EWER**, 10 inches high; classic shape, with trefoil lip; plain terra-cotta body, slightly ornamented round the base, shoulder, and lip, with black-glazed bands and gilt lines: handle and inside of ewer glazed.

W. 8. **TWO-HANDLED VASE**, 15 ins. high; oviform body, ornamented with black-glazed scroll-work.

W. 9. **VASE**, 12 ins. high; shape of a classic lecythos, ornamented with fret pattern, anthemion, &c. in turquoise-blue, black and yellow enamels, and gilt lines.

W. 10. **VASE**, 10 ins. high; plain body, with two applied ring-handles in turquoise-blue enamel, pendent from grotesque animal heads touched with gold.

W. 11. **VASE**, 14½ ins. high; oviform body of pale terra-cotta, relieved by ornaments applied in darker ware; on each side an oval medallion with female profile in relief on ground of turquoise-blue enamel, surrounded by gilt bands; two rising handles in form of female busts touched with gold and turquoise enamel.

W. 12. **VASE**, 6 ins. high; oviform body, with square handles; ornamented with sage-green bands and yellow fret pattern.

W. 13. **SPILL-VASE**, 4½ ins. high; body with vertical fluting and raised stars, and with two broad horizontal bands of turquoise-blue enamel, edged in gold.

W. 14. **CACHEPOT**, 8½ ins. high, 7½ ins. in diam.; ornamented with central bands of fluting and stars edged in gold; at top and bottom running borders of laurel in pale terra cotta, on sage-green ground, edged in gold; three feet touched with gold and black glaze,

W. 15. **CACHEPOT**, same size as last piece; body vertically fluted, and ornamented with three horizontal bands of black enamel edged in gold.

W. 16. **Flower-pot and Stand**, 6 ins. high; octagonal shape, with embossed flowers in panels edged in black; the angles and edges glazed.

W. 17. **Rustic Basket of Flowers**, delicately modelled in terra-cotta; under glass shade, mounted on plain terra-cotta stand.

"The *chefs-d'œuvre* of the manufacture, as yet, have been baskets of flowers, and they claim this distinction as setting forth the infinite *finesse* with which the clay may be worked; results far surpassing anything, either ancient or modern, that has been attempted in this way. . . . It is Mr. Samuel Kirkland's skilful fingers that manipulate the baskets of flowers."—*Art Journal.*

W. 18. **Candlestick**, 9½ ins. high; in plain terra-cotta, relieved with gilt lines.

W. 19. **Jug**, 7 ins. high, in red glazed ware; the body sprinkled with stars in blue, red, and brown; the base, rim, and handles of a deeper colour than the body, and touched with gold.

W. 20. **Cup and Saucer**, in glazed ware, ornamented with horizontal bands alternately pale and dark brown; edged in gold.

W. 21. **Female Bust**, emblematical of Charity, in terra-cotta.

As this bust, on account of its size, could not conveniently stand in any of the cases, it has been placed on a pedestal in the hall.

FULHAM POTTERY.

[Wall Case XXX.]

It has been already mentioned (p. 13) that John Dwight, of Oxford, had discovered the manufacture of an imperfect kind of porcelain, certainly as early as 1671. On the 13th of April of that year letters patent were granted to Dwight for "the mistery of transparent earthenware, commonly " knowne by the names of porcelaine or China, and Persian ware, as alsoe " the misterie of the stone ware, vulgarly called Cologne ware." In this patent we are told that "at his own proper costs and charges, he hath " invented and sett up at *Fulham*, in our county of Middlesex, several new " manufactories." So important were Dwight's discoveries, that Dr. Plot, in his *History of Oxfordshire*, published in 1677, sums up his account by saying "in short, he has so advanced the *Art Plastick*, that 'tis dubious " whether any man since Prometheus have excelled him, not excepting the " famous Damophilus and Gorgasus of Pliny."

On the death of John Dwight, which must have happened about the year 1737, the pottery which had thus been established at Fulham passed into the hands of his daughter Margaret Dwight, who entered into partnership with Thomas Warland; but some years afterwards these proprietors became insolvent. Subsequently Miss Dwight married a Mr. White, and the works long remained in the possession of their descendants. In 1864 they passed into the hands of Mr. J. C. Bailey.

The materials which Dwight employed in the Fulham pottery are not specified in either of the two patents which he obtained. Dr. Plot, speaking of the manufacture, says "these arts he employs about materials of English " growth, and not much applied to other uses; for instance, he makes the " stone bottles of a clay in appearance like to tobacco-pipe clay, which will not " make tobacco-pipes, although the tobacco-pipe clay will make bottles."

Books containing recipes for use at the Fulham works are extant, bearing dates 1692 and 1698.

A fine collection of authenticated pieces of early Fulham ware was in the possession of Mr. C. W. Reynolds, but was dispersed a few years ago. Some of the finest pieces, however, are preserved in the South Kensington Museum.

X. 1. MUG, in white porcelain, supposed to be of early Fulham manufacture; globose body ornamented with band of slightly raised flowers running down the shoulders, and with horizontal ribs round the broad neck.

Presented by Henry Willett, Esq., F.G.S., 1872.

Pieces in this style are now generally regarded by collectors as examples of Dwight's porcelain, but perhaps on insufficient grounds. The handle of a specimen was examined chemically by Prof. Church, who found in it about 5 per cent. of soda.

X. 2. HALF-PINT MUG, in plain drab stone-ware; stamped on the side with the initials "A. R." surmounted by a crown.

The early Fulham stone-ware was in many cases ornamented with the initials of the reigning sovereign, and specimens thus marked are known to extend from the reign of Charles II. to that of George I. Queen Anne's initials, which are on this and the following piece, would place the date of their manufacture somewhere between 1702 and 1714.

X. 3. JUG OR GORGE, in drab stone-ware, ornamented with rudely incised scroll-work, filled in with blue enamel; in front of the globose body, a circular medallion with initials "A. R." surmounted by a crown.

It is believed that this and the following pieces are examples of the Fulham stoneware made in imitation of the *grès de Flandres*, or Cologne ware; but as this ware was largely imported into England, it is difficult to separate the home-made from the foreign pieces, and consequently it is possible that some of the specimens here referred to Fulham are of Continental origin.

X. 4. JUG, in drab stone-ware, ornamented with stamped flowers and incised lines, and with large medallion portrait in front inscribed WILHELMUS III. D.G. MAG. BRIT. FRANC. ET HIB. REX.

X. 5. JUG in drab stone-ware, ornamented with incised scroll-work filled in with blue, and with blue and drab chequer pattern; the neck decorated with a band of purple; on front of the belly an oval medallion embossed with initials "G. R." surmounted by a crown.

X. 6. MUG in drab glazed stone ware, ornamented with leaves rudely painted in deep cobalt blue over outlines scratched in the paste; in front an embossed medallion with crowned head and initials "G. R."

X. 7. SMALL MUG, in similar style to last, with crowned head and "G. R." in raised medallion.

X. 8. JUG in white-glazed earthenware, with raised medallion bearing crowned head and initials "G. R.," surrounded by leaves rudely painted in blue; the neck ribbed in a horizontal band and coloured blue; impressed "W. T. & Co."

X. 9. SPILL VASE, in white-glazed earthenware ornamented in black transfer-printing with portrait of Queen Caroline, and view of Fulham from the Thames.

X. 10. OINTMENT POT, 2½ inches high, 3½ inches in diameter at rim; coarse paste coated with a stanniferous glaze. Found at Fulham.

Presented by Dr. David S. Price.

X. 11 to X. 13. } Three OINTMENT POTS similar to the last piece.

Presented by the late Dr. Weeks.

X. 14. } PAIR of male and female
X. 15. } FIGURES, 16 inches high, coated with opaque white enamel.

[On top shelf, Case XXXVII.]

It is perhaps doubtful whether these two pieces may fairly be appropriated to the Fulham factory.

X. 16. INKSTAND in brown stone-ware, in form of grotesque old woman's head with gaping mouth to admit the pen.

X. 17. JUG in brown stone-ware, ornamented with scroll work in relief obtained by cutting away the surrounding base, and with stamped diaper-pattern, &c., filled in with blue: artist's name scratched in paste.—"*R. W. Martin, Fulham.*"

This is an example of modern ornamental stone-ware, thrown at Fulham, then decorated by Mr. Martin, and afterwards fired at the Fulham pottery. The modern ornamental stone-ware of Lambeth will be noticed on p. 264.

X. 18. SQUARE PLAQUE in terra-cotta, of modern Fulham manufacture; with head of mother and infants in *intaglio rilievato* stamped on back "R.W.M" and 1871, with *Osler A. Munro* scratched in the paste.

Presented by H. Willett, Esq., F.G.S., 1874.

MORTLAKE POTTERY.

[Wall Case XXX.]

For the following account of this pottery we are indebted to Dr. Hugh Diamond, who has presented the only specimens of the ware which the Museum possesses. Lysons, in his "Environs of London," published in 1792, says, that about forty years since a manufacture of delft and earthenware was established by William Sanders, which is still carried on by his son. In the Supplement to the same work, dated 1811, it is said that the manufactory was then carried on by Wagstaff & Co., and that there was a small manufactory of white stone-ware belonging to Mr. Joseph Kishere. Some of this ware was of a very superior make, much resembling that made by Dwight at Fulham. Although it is rarely marked, the following marks are occasionally found stamped upon it: "Kishere," "Kishere, Mortlake," and "Kishere's Pottery, Mortlake, Surrey."

X. 19. MUG, cylindrical; drab stone-ware, with the upper part deep brown; ornamented with figures laid on in low relief and representing stag-hunting, sporting trophy, and drinking scenes; impressed mark "Kishere, Mortlake."

Presented by Dr. Diamond, 1875.

X. 20. SMALL JUG, in pale drab stone-ware, ornamented in low relief with a hunting scene; unmarked.

Presented by Dr. Diamond, 1875.

With reference to the general marks on this ware, Dr. Diamond observes (MS.) that "the shopkeepers objected to their customers knowing where it was to be obtained, wishing to keep the supply in their own hands. This observation accounts for so much of our English pottery and porcelain having no maker's impress. Even at the present day some of the oldest and most respectable establishments desire to have no indication of the locality of manufacture on their wares."

ISLEWORTH POTTERY.

[Wall Case XXX.]

A small factory was established at Railshead Creek, Isleworth, in 1760, by Joseph Shore of Worcester. It is said that at first both pottery and porcelain were produced, but on the death of the superintendent Benjamin Quarman, in 1787, the manufacture of porcelain was discontinued. Much of the coarse pottery was known as "Welsh ware." About 1825 the works were removed to Hounslow, but were abandoned about two years after their removal.

X. 21. **SMALL DISH**, in form of a valve of pecten, ornamented with Chinese fishing-scene printed in blue under the glaze.

X. 22. **SAUCER**, in white porcelain, with blue edge; ornamented in blue with monogram "C. H. S." in centre surmounted by crest of portcullis.

Presented by G. C. Parr, Esq., 1874.

X. 23. **VASE.** 7½ inches high, in red terra cotta ornamented in relief with figures of Hope and Fate; impressed mark "S. & G." and figure 5.

This piece is placed with the Isleworth ware on the assumption that the initials may be those of Shore and Goulding, who are known to have been proprietors of the works at different times, although it is not certain that they held them jointly.

LAMBETH AND VAUXHALL POTTERY.

[Wall Case XXXVII.]

It is known that about the middle of the seventeenth century certain Dutch potters settled at Lambeth, and introduced the manufacture of pottery tiles. That such manufacture was established in London certainly as early as 1668 may be seen from the evidence given before the barons of the Court of Exchequer in a case relating to a parcel of potter's clay, belonging to Edmund Warner, which had been seized by the Custom House officers. This trial took place in 1693, and William Riddal then deposed that "he "was Steward and Tenant to the said *Warner* for above 20 Years, in all "which time the said *Warner* constantly sold to the Potters in *London* "considerable quantities of the same sort of Clay now in dispute, for the "making of White and Painted Earthen-ware." Evidence on Warner's behalf was also taken from five London potters: "*William Knight*, *Thomas* "*Harper*, *Henry de Wilde*, *John Robins*, *Moses Johnson*, are all "potters in *London*, and swore that they had all seen the said *Warner's* "Clay, which was seized, that it was really Potter's Clay, and of the same "sort which they had constantly bought of him, *some for above 25 years*, "others ever since they were Traders." *

On the 23rd of April 1671, letters patent were granted to John Ariens Van Hamme, a Dutchman, who had settled in this country, for his "art "of makeinge tiles and porcelane, and other earthenwares, after the way

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* As the document from which these extracts are quoted is of interest in connexion with the history of British pottery, it is printed *in extenso* in Appendix B, p. 310.

"practised in Holland." It is probable that this Van Hamme may have established himself at Lambeth.

From what we know of the productions of the Lambeth potteries, they appear to have been chiefly delft and stoneware. The works flourished until the close of the 18th century,* when they were unable to compete with the Staffordshire potteries, and afterwards only common stone-ware was made.

Many examples of Lambeth delft ware will be found in the collection, but they are placed with the other specimens of delft from various localities and are referred to at p. 266. The following pieces simply show the character of the brown stone-ware manufactured at Lambeth at a comparatively recent period.

X. 24. Mug, in pale brown stoneware, representing bust of Bonaparte in a cocked hat; the handle ornamented with the eagle; stamped "Stephen Green, Lambeth."

X. 25. Bottle, in brown stoneware, the upper half of darker colour than the lower; the bottle represents Lord Brougham holding a scroll inscribed "The True Spirit of Reform," and below is the inscription "Brougham's Reform Cordial;" the back stamped "Doulton & Watts, Lambeth Pottery."

X. 26. Large Jug, in brown stone-ware, as bust of Lord Nelson; the figure is represented with only one arm, and bears a medallion inscribed "Nile, 1798."

X. 27. Large Jug, in brown stone-ware, representing head of a jolly Englishman; forming a shew-piece for a licensed victualler.

The two preceding pieces stand on an upper shelf.

Lambeth Ornamental Stoneware.

Within the last four or five years Mr. Henry Doulton, of the Lambeth Potteries, has introduced an entirely new branch of manufacture. Under the artistic superintendence of Mr. John Sparkes, of the Lambeth School of Art, the salt-glazed stoneware, which had previously been limited to the formation of vessels comparatively rude in type, is now successfully applied to the production of objects as ornamental as the old Flemish stoneware, or *Grès de Flandres.* The following selection of specimens will illustrate the variety and originality of decoration applied to this ware.†

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* The following advertisement is quoted from Felix Farley's Bristol Journal 11th May, 1776:—

"Wanted in Griffith and Morgan's Pot-house, Lambeth, near London, a Stone Kiln burner, also a top-ware turner and an ingenious painter. These men must understand their Business well, as the Company have indifferent hands enough already.

☞ "They are desired not to leave Bristol till they have wrote to the Company and "had their answer."

† For further information on the Lambeth stoneware which is sometimes termed "Doulton ware," the visitor may be referred to a paper "On some recent inventions "and applications of Lambeth stoneware, terra-cotta, and other pottery for internal and "external decoration," by John Sparkes. Journal of the Society of Arts, Vol. XXII., No. 1119, May 1, 1874, p. 557.

X. 28. VASE, 9 inches high, in brown stoneware, ornamented with a frieze of sheep, by Miss Hannah B. Barlow; the incised outlines being filled in with blue glaze, and the subject relieved with white touches; the neck and base decorated with bands of leaf ornament in blue and brown; marked, like most of the pieces, with maker's stamp and artist's monogram.

The Doulton ware is famous for Miss Barlow's original and spirited sketches of animals. The outlines are scratched in the soft paste, and this method of decoration has led to the ware being sometimes called *sgraffito ware.*

X. 29. JUG, 8 ins. high, in brown stoneware, ornamented by Miss Hannah B. Barlow with group of dog and pups, the incised outlines being filled in with blue glaze.

X. 30. JUG, 8 ins. high, in brown stoneware ornamented with frieze of rabbits, by Miss Hannah B. Barlow, the incised outlines filled in with blue glaze; the neck decorated with leaves in dark blue glaze.

X. 31. TANKARD, 12 ins. high, in brown stoneware, ornamented with elaborate floral scrollwork, by George Tinworth, incised in paste, and coloured with pale greenish grey glaze, relieved with white dots and coloured bosses; the ground a rich brown glaze.

X. 31*a.* VASE, 12½ ins. high, in brown stoneware, ornamented with a bold spiral scroll of leaves, by George Tinworth, the outlines incised and the leaves coloured with a deep blue glaze relieved with white dots; around the base brown glazed leaves and coloured bosses.

X. 32. VASE, 6½ ins. high, in brown stoneware, ornamented with bold scroll work by Miss Emily J. Edwards, the outline incised and the scroll filled in with a pale dull blue, relieved with white bosses; the ground glazed deep blue.

X. 33. JUG, 5½ ins. high, in brown stoneware, ornamented by Miss Emily J. Edwards, with incised scroll-work round the shoulder, and with blue wavy pattern round the lower half.

X. 34. JUG, 10 ins. high, in brown stoneware, ornamented by Frank A. Butler, a deaf and dumb artist; ornamentation consisting of incised bold leaves, blue-glazed and relieved with white dots, on ground with herring-bone pattern in white.

X. 35. JUG, 4½ ins. high, in brown stoneware, coated with pale blue slip; ornamented by Frank A. Butler, with incised scroll work in dark blue and brown, relieved with white dots.

X. 36. JUG, 9¾ ins. high, in brown stoneware, ornamented by Arthur B. Barlow, with incised scroll work coated with dark blue, grey and brown glazes, and relieved with rows of white dots.

X. 37. JUG, 8 ins. high, in brown stoneware, coated with whitish slip, and ornamented by Arthur B. Barlow with bold scroll work coloured dark blue, on diapered ground.

X. 38. VASE, 6¼ ins. high, in brown stoneware, ornamented by Arthur B. Barlow with incised scroll work filled in with blue and brown glazes, on dark green glazed ground.

X. 39. JUG, 9½ ins. high, in brown stoneware ornamented in vertical bands with incised leaves glazed blue, and alternating with dark brown bands.

The incised outlines on this piece serve to shew the burred edges produced by the style when the piece is engraved too soon after leaving the thrower's wheel. The incised decoration on all the other pieces shews clean cuts, the clay having been allowed to harden sufficiently before being engraved.

X. 40. JUG, 9¾ ins. high, in brown stoneware; massive form ornamented with stamped dog-tooth ornament in panels separated by beaded lines and rosettes; the ornament touched with blue and dark brown glazes.

X. 41. **Jug**, 10½ ins. high, in brown stoneware, with white ground ornamented with incised scroll-pattern filled in with blue and brown glaze, and relieved with bosses; around the body four horizontal bands of deep blue glaze with white dots.

Delft Ware (*British and Foreign*).

[Wall Cases XXXV. to XLIV.; bottom shelves.]

It is said that as early as the year 1310 the manufacture of pottery was successfully carried on at Delft in Holland,—a town which in the seventeenth century acquired extraordinary reputation by this manufacture. The famous Delft ware was made from clay obtained in the neighbourhood of Maestricht, mixed with marl and sand, and was coated with an opaque stanniferous glaze or enamel, frequently presenting a slight greenish or blueish tint.

The evidence already adduced with respect to the Lambeth pottery shows that in the middle of the seventeenth century—a period when the Delft manufacture had attained its greatest prosperity—certain Dutch potters established themselves in this country; and following up the history a few years, we learn, from the preamble to a patent granted in 1676, that a Dutch potter, encouraged by the British ambassador at the Hague, had settled here with the view of pursuing his "Art of "makeinge tiles and porcelane and other earthen wares *after the way* "*practised in Holland*."* From the success which attended the manufacture of delft ware at Lambeth, the art extended to other localities, and was certainly carried on at Fulham, Liverpool, and Bristol. The want, however, of sufficient means of distinction between the wares made at these several places frequently renders it difficult, and sometimes indeed impossible, to satisfactorily refer pieces of English delft to their respective localities, or even to separate the British from the foreign specimens. The following collection therefore includes both Dutch delft and similar ware of English manufacture.

Y. 1. **Wine Jug**, 7 inches high; coarse body, coated with an opaque white stanniferous enamel, with pewter lid stamped with the Tudor rose and crown, and initials H. G.

These wine pots usually have a globular body, with a narrow neck, but no spout, and are furnished with a handle. There appears to be no doubt that most of them were manufactured at Lambeth.

Y. 2. **Wine Jug**, 6½ inches high, in similar ware, inscribed in blue on the front of the body "Whit, 1647;" handle broken.

Y. 3. **Wine Jug**, 6½ inches high, in similar ware, inscribed in blue "Claret, 1662."

Mr. Willett, of Brighton, has several of these wine jugs, including pieces inscribed "Whit, 1649," "Claret, 1651," and "Sack, 1652." A cup in similar delft ware in

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* Specification of Patents, No. 191, Oct. 27, 1676.

Mr. Willett's Collection bears the inscription, "William Lambeth, 1630."

Y. 4. Caudle Pot and Cover, two-handled, with spout rising from near base; plain delft with opaque white stanniferous glaze, showing pinkish tint on the edges and raised parts where the glaze is thinnest.

Presented by J. F. Walker, Esq., M.A, F.G.S., 1875.

Y. 5. Candlestick, 10½ inches high, coated with an opaque white tin enamel, painted in blue with the arms of the Fishmongers' Çompany, and inscribed "W. W. E., 1648."

This ware so closely resembles that of the wine-pots that it must be referred to the same manufactory, probably Lambeth.

Y. 6. Pill-slab; an octagonal plaque of delft ware, perforated for suspension, and painted with the arms of the Apothecaries Company, and the motto "Opifer que per orbem dicor."

These slabs were formerly used by apothecaries in rolling the materials of pills. The glaze on these slabs is of a much less opaque white colour than that on the preceding pieces.

Y. 7. Pill-slab; a plaque of delft ware in form of an heraldic escutcheon, or "heart," painted in blue, with arms of the Apothecaries' Company and of the City of London.

Y. 8. Drug Pot, 7½ inches high, coated with a white opaque enamel; painted in blue with a double-headed eagle, the crest of the Duke of Marlborough.

Y. 9. Jar, in delft ware, inscribed in blue with initials "W. K."

Y. 10. Jar, in delft ware, ornamented with horizontal bands in manganese-purple and running ornament in cobalt-blue. Found at a depth of 14 feet from the surface in excavations at the Brunswick Hotel, Jermyn Street, London.

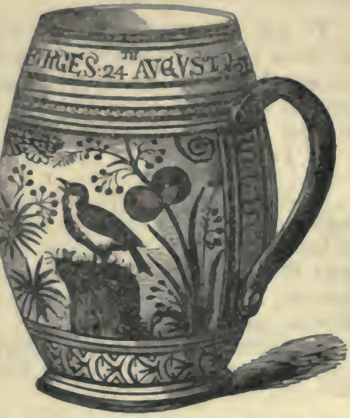
Presented by Mr. W. J. Jarvis, 1874.

Y. 10*a*. Small Plateau, 5½ inches diameter, painted in blue with figure of a naked infant holding a bird by a string in his right hand, and dated 1555; reverse with blue scroll-work and the sacred monogram.

It is believed that this early-dated piece is of Dutch manufacture; the style of painting is certainly not English.

Y. 11. Barrel-shaped Mug (fig. 154), 5½ inches high, painted in blue with birds, insects, and flowers, and inscribed around the rim "WILLIAM AND ELIZABETH BVRGES, 24th AVGVST, 1631;" also dated under the handle 1632.

Fig. 157.



The white-glazed surface of this piece has a peculiar granular appearance, unlike that of any of the other pieces of delft ware in the collection, and somewhat resembling that of a salt-glazed surface. It is nevertheless believed to be of Lambeth manufacture.

Mr. Willett has a mug in delft ware inscribed "Iohn Leman, 1634."

An old English delft mug inscribed around the neck "John Williamson, 1645," is in the museum of the Historic Society of Lancashire and Cheshire. It was formerly in the possession of Mr. W. Everard, of Liverpool, and is attributed by Mr. H. Ecroyd Smith to Liverpool manufacture.

Y. 12. Puzzle Pot, with false bottom enclosing a cavity which communicates with three tubular handles; coated with opaque white glaze, coarsely painted in blue in oriental style, and inscribed with initials "C. T. E." and date 1684.

Y. 13. CAUDLE-POT, with pair of elaborately twisted handles; spout, springing from base, ornamented with serpent; three feet in form of birds; coated with white glaze of greenish tint, painted in blue with foreign birds and flowers, and inscribed on the base "H. H. K., 1696."

This piece may probably be referred to the Lambeth factory.

Y. 14. CAUDLE-POT and COVER, with two handles and spout, springing from base; painted in deep blue with birds and flowers.

Y. 15. SALT-CELLAR, supported by three winged figures seated at the angles of a triangular base, and each bearing a shell; painted with flowers in blue.

Presented by Sir T. W. Holbourne.

Y. 16. FLOWER-VASE, 12 inches high; shaped body, with two handles in form of camels' heads, and cover with fifteen necks for holding cut flowers; painted in blue with flowers, and marked on the base.

Presented by Sir T. W. Holbourne.

This appears to be a piece of Dutch delft.

Y. 17. VASE and COVER, 9½ inches high, with mask handles; coated with a greenish glaze, painted in blue with landscape and figures.

The cover is painted in oriental style, and probably does not belong to the vase.

Y. 18. TANKARD and COVER, 11 inches high, coated with a greenish glaze, painted in blue with landscape, and dated at base of handle 1758; the cover ornamented with portrait of Queen Anne, and inscribed inside "L. C. Pope, 1758."

This piece, and the succeeding one, are not unlike some specimens of Bristol delft.

Y. 19. BOTTLE, flat-sided with ring-shaped body; coated with greenish glaze, painted in blue with flowers on one side and landscape on the other, and inscribed around the hoop of the body "James and Ann Tompson, 1784."

A balloon, painted in purple and yellow, forms a prominent object in the landscape. The earliest balloon ascents were made in France in 1783, and Lunardi's first ascent in this country took place on September 21st, 1784.

Y. 20. DRUG POT for Venice Turpentine, painted in blue with a label "TER : VENET." surrounded by angels and scroll work; marked with a cross in blue under the glaze on the base.

Y. 21. DRUG POT, similar to the last piece, painted in blue with a blank label, afterwards filled in by painting in black over the glaze "EL·LENITIV. ;" marked with a cross in black.

It seems probable that these drug pots, when turned out from the factory, perhaps in Holland, had blank labels, and that the names of the preparations were afterwards painted elsewhere. The letters have an English character, but it has been considered that the style of painting is Dutch.

Y. 22. BOWL, 6 inches diameter, painted outside with three fish in blue on a mottled purple ground, and inside with four fish in blue on a greenish glaze; rim edged in brown, body cracked.

Presented by Mrs. Smith.

This delft bowl is said to have been for upwards of two hundred years in the possession of the donor's family in Staffordshire.

Y. 23. PUNCH-BOWL, 10 inches in diameter, coated with a greenish glaze, and painted in pale blue on the outside with hunting scenes, and on the inside with portrait surrounded by military trophies, and the following inscription :—

"William, the Princely Youth, with
Transport see,
"He chains th' Oppressor, sets th'
Oppressed Free,
"Hail Friend of Albion and of Liberty!"

It is believed that the other delft punch-bowls on this shelf may be certainly attributed to Liverpool manufacture, and they are therefore catalogued with the Liverpool pottery at p. 246. The following series of specimens of delft ware commences in Wall Case XXXV., and extends to No. XLIV.

Y. 24. **Plate**, 9 inches diameter, greenish glaze, painted in blue with scene of apple-gathering, inscribed "September;" marked in blue with the hatchet.

The plates representing the Seasons are probably of Dutch delft. The character of the painting is Dutch, but the names of the months are English, the pieces having been made for the English market.

Y. 25. **Plate**, 10 inches diameter, greenish glaze, painted in blue with a scene referring to brewing, and inscribed "October;" marked in blue "W. D. B."

Y. 26. **Plate**, 9¾ inches diameter, greenish glaze, painted in blue with scene of killing a pig, inscribed "November;" marked in blue with the hatchet.

Y. 27. **Plate**, 9 inches diameter, greenish glaze, painted in blue with profile portrait, incribed "W. D.V., P. V. O. R.;" rim edged in orange; blue mark on back, the hatchet and letter V.

This is probably a portrait of Prince William V. (W. D. V.=Willem den V.).

Y. 28. **Plate**, 8½ inches diameter, greenish glaze, painted in blue with simple flowers; rim edged in red.

Y. 29. **Plate**, 9 inches diameter, thin body, coated with brilliant glaze, and rudely painted in blue with flowers and conventional ornaments.

Y. 30. **Plate**, 8¾ inches diameter, thin body, coated with brilliant glaze, and painted in blue with conventional flowers; marked in blue "F. D. K. V."

Y. 31. **Plate**, 9 inches diameter, mottled purple ground, with paintings in blue; in centre a scene of castle by a river, in octagonal panel; around the border simple flowers in eight panels.

Presented by Miss Mayo, 1873.

Y. 31*a*. **Large Dish**, 19 inches by 14 inches, with shaped edge; coarse body, coated with thick opaque cream-coloured glaze, painted in yellow, orange, blue, and purple; subject, a courtship scene, the figures in costume of the period.

Presented by Sir T. W. Holbourne.

This is probably a piece of coarse Spanish Majolica ware.

Y. 32. **Dish**, 12¼ inches diameter, coarse thick body, coated with white opaque glaze, and rudely painted in dirty blue colour with star and other ornaments.

Y. 33. **Dish**, 14 inches diameter, coarse body, coated with white enamel rudely painted in purple, yellow, and blue; subject, the Crucifixion.

Presented by the late Rev. Professor Henslow.

This dish is known to have been in use in Suffolk at an early date. Owing to the ready means of intercourse between Holland and our eastern sea-board, large quantities of Dutch delft were imported during the seventeenth and eighteenth centuries into Harwich, Yarmouth, Hull, and other eastern ports.*

Y. 34, **Dish**, 14½ inches diameter, coarse body, coated with a dull glaze, and painted in blue, green, yellow, orange, and purple; subject, Christ and His disciples on the road to Emmaus; above the figure of Christ a bird symbolizing the Holy Spirit, and in the clouds the word GOD; dated 1653, in blue on quatrefoil in foreground.

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* *See* Meteyard's "Life of Wedgwood," vol. i. p 109.

Y. 35. Dish, 15¼ inches diameter, coated with a white enamel, and painted in blackish blue with the arms of the city of London, inscribed "ANNO 1654, LONDE;" broken and rivetted.

It is believed that this piece may be safely referred to Lambeth manufacture.

Y. 36. Dish or Strainer, 13¾ inches diameter, with two handles, and six rows of perforations in concentric circles; painted in pale blue, and inscribed on the reverse "V. H. M., 1673."

Y. 37. Dish or Tray, with six-lobed edge, supported on seven small feet; painted in central hexagonal panel, with tea-drinking scene in a room; inscribed in blue: 17 : E + A : 43.

This piece, dated 1743, is supposed to be of Lambeth manufacture. A negro page is bringing in a kettle, and the tea is served on a tray similar in shape to this specimen. The mirror on the wall may be a Vauxhall plate.

Y. 38. Dish, 13¾ inches diameter, thin body with narrow rim, coated with brilliant glaze, and painted in deep blue with conventional foliage in oriental style.

Y. 39. Dish, 15½ inches diameter, thin body, coated with greenish glaze, and painted in pale blue; subject, a Queen seated on a throne and receiving the presentation of a book inscribed "Anno 1690."

From this date, it may be inferred that the queen here represented is Mary, the wife of William III.

Y. 40. Dish, 40 inches diameter, coarse ware, coated with white enamel, and rudely painted in colours with full-length portrait of a king in costume of the Stuarts.

Y. 41. Dish, 13¼ inches diameter, coarse white-glazed ware, rudely painted in blue, yellow, and green, with full-length portrait of Charles II., inscribed CR^2.

Y. 42. Dish, 13 inches diameter, coarse white-glazed ware, painted in blue with portraits of Charles II. and Queen Catherine of Braganza, surrounded by military trophies, and inscribed Q. K. C. R.

Y. 43. Dish, 13 inches diameter, coarse ware coated with greenish glaze, and rudely painted in purple, blue, and yellow, with portrait of James II., inscribed JR^2.

Presented by Sir T. W. Holbourne.

Y. 44. Dish, 13¾ inches diameter, coarse ware, coated with a white enamel, much crazed; full-length portrait of William III., outlined in purple, painted in blue, and touched with green; inscribed W.R.

Bandinel Collection.

Y. 45. Dish, 13¾ inches diameter, coarse ware, coated with a greenish crazed glaze, and rudely painted in blue, orange, and purple with an equestrian portrait of William III., inscribed K. W.

Y. 46. Dish, 13¼ inches diameter, coarse ware, coated with a greenish glaze, and rudely painted in purple, blue, and yellow, with portrait of Mary, the Queen of William III., inscribed Q. M.

Presented by Sir T. W. Holbourne.

Y. 47. Plate, 8¾ inches diameter, coated with greenish glaze, and very rudely painted in blue with portraits of William and Mary, inscribed W. M. R.

Y. 48. Oval Plaque, 9 inches by 7½ inches; coated with a greenish glaze, and painted in blue with portrait of Queen Anne, inscribed A. R.; surrounded by a raised border with running leaf-pattern, forming a frame perforated for suspension.

Y. 49. Oval Dish, 19½ inches by 16¼ inches; coarse paste, coated with a brilliant greenish glaze, and painted in pale blue; the centre ornamented in low relief with a recumbent nude female figure surrounded by five amorini; the border sunk in eight wells or godets, alternately circular and oval, painted with birds and flowers, and separated by baskets of flowers and masks in relief; inscribed "H. T. T., 1697."

This piece, which is believed to have been manufactured at Lambeth, is copied from some of Palissy's ware. The enamel is chipped off those parts which are in strongest relief.

BELLEEK PORCELAIN (IRELAND), &c.

[Wall Cases XLI. to XLIII.]

The occurrence of large quantities of felspar in the neighbourhood of Belleek, near Lough Erne, in County Fermanagh, has led to the establishment of porcelain works in this locality. Prior to the Dublin Exhibition of 1853, Mr. Kerr, of the china factory at Worcester, and Mr. Armstrong, of London, made a tour through Ireland for the purpose of discovering materials suited for the manufacture of pottery and porcelain. The materials thus obtained served for the production of the celebrated service designed from subjects in "The Midsummer Night's Dream," and displayed in the Dublin Exhibition. In consequence of the exhibition of this service, attention was called to the existence at Belleek of felspar, as well adapted to the purposes of the potter as that imported from Sweden or Norway; and a manufactory was accordingly established, in 1857, under the direction of Mr. Armstrong. The china clay employed is imported from Cornwall. Many of the ornamental objects produced by this factory are characterised by being carefully modelled from natural objects. A nacreous lustre is given to much of the ware by the use of a preparation similar to that patented by Brianchon, and formed of salts of bismuth mixed with resin and oil of lavender, and coloured by certain metallic oxides. (*See* p. 59.)

Z. 1. MUG in white porcelain, with glaze of feeble lustre; six-sided body ornamented with vine and ivy in relief, satyr's mask under spout, and rustic handle; mark, printed in brown, a round tower harp, dog, and shamrock, with word BELLEEK.

Presented by G. L. Conynham, Esq.

Z. 2. TAZZA, in cream-coloured porcelain, partly glazed, with ribbed body and pair of snake handles; mounted on pedestal ornamented with garlands and festoons of raised flowers pendent from rams' heads; impressed mark in Irish characters.

Z. 3. PAPER WEIGHT in form of a dragon, painted red and green, and mounted on rock-work with shells at base; mark as on No. Z. 1, printed in red, and Irish character stamped.

Z. 4. SPILL-POT, 6 inches high, in form of a spike of Indian corn; cream-coloured porcelain coated with a lustrous glaze; leaves tinted yellow; mark printed in blue.

Z. 5. LARGE SHELL of *Dolium*, modelled in porcelain, tinted and glazed.

Z. 6. SMALL SHELL of *Natica*, modelled in porcelain and glazed.

Z. 7. TRIPLE BASKET formed of three conventional shells grouped with corals and seaweed; tinted and coated with lustrous glaze; mark printed in blue, and Irish character stamped.

Z. 8. **Salt Cellar** in form of a valve of *Tridacna* (clam shell), mounted on group of shells, including *Cerithium*, *Murex*, &c.; cream-coloured porcelain, tinted and glazed; mark printed in blue, and stamped BELLEEK, FERMANAGH.

Z. 9. **Salt Cellar** in form of a small clam shell, tinted and glazed; mark printed in blue.

Z. 10. **Salt Cellar** in form of a shell of Dolium, tinted and glazed; mark printed in blue.

Z. 11. **Muffineer** in form of a shell of Murex, supported on group of coral, tinted and glazed.

Z. 12. **Argonaut Shell** (Paper Nautilus), mounted on group of coral springing from a base bestrewn with shells and seaweed; modelled in porcelain, tinted and glazed; mark printed in blue.

Z. 13. **Cream Jug**, in cream-coloured porcelain, ornamented with embossed diamond pattern, having blue bosses in centres and red bosses at the angles, with gilt leaf-borders running round the neck and foot; handle in form of twisted cord tinted purple; mark printed in blue.

Z. 14. **Plate**, in white glazed earthenware painted with Chinese subject in blue under the glaze; impressed mark DONOVAN.

Mr. Donovan, of Poolbeg Street, Dublin, was agent for several Staffordshire manufacturers, and the ware bearing his name appears to be chiefly of Staffordshire make.

Z. 15. **Plate**, in white glazed earthenware, printed in black over the glaze with a seated female figure holding in one hand the cap of Liberty, and in the other a cornucopia and a scroll inscribed "Free Trade;" on one side of the figure a woolsack dated "Nov. 1818," and on the other side the Irish harp and crown; in the foreground various masonic emblems, and in the distance a round tower with Irish flag; the engraving signed "*Engrav'd by James Brindley*," the plate stamped WOODNORTH & CO.

Z. 16. **Dish**, oblong, with shaped edge, in white glazed earthenware, ornamented with blue edge and five-petalled blue flowers, on brown stalks, gracefully distributed over the entire field.

Presented by Dr. H. Diamond, F.S.A., 1875.

This piece is unmarked, but is reputed to have been made at Portobello, near Edinburgh.

Foreign Pottery and Porcelain.

(*Ancient and Modern.*)

[Cases on both sides of the lower gallery; Oriental porcelain in Pedestal Case 5.]

Although the main object kept in view in forming the ceramic collection in this Museum has been the illustration of the history and present condition of the manufacture of pottery and porcelain in this country, it has nevertheless happened that a few samples of foreign wares, mostly presentations, have from time to time been introduced into the Collection. The foreign department thus formed is, however, necessarily incomplete, and it is not considered desirable to attempt an extension of the collection in this direction. It is, perhaps, sufficient, therefore, to merely indicate the position of the foreign series, without introducing any descriptive notices, which would indeed fall beyond the scope of this catalogue, professedly a catalogue of British pottery and porcelain.

APPENDIX A.

By George Maw, F.G.S., &c.

Catalogue of Specimens illustrating the Clays and Plastic Strata of Great Britain, collected and described by George Maw, F.G.S., &c.

[Pedestal Cases Nos. 4, 5 (west side), 52, 53, and 55 (east side), lower compartments.]

Each set of specimens comprises six examples:—

1. The native clay in the unburnt state.
2. The native clay in the kiln-burnt state.
3. A slab of unburnt clay, exactly four inches square, pressed out of refined clay after the coarse particles had been removed by passing it through a fine lawn of wove wire containing 100 wires or 10,000 perforations to the inch.
4. The coarse matter so removed.
5. A burnt slab of native or unrefined clay originally moulded four inches square.
6. A burnt slab of refined clay originally moulded four inches square.

The series of specimens are arranged in geological sequence, commencing with the newer deposits, viz.:—

Nos. 1 to 18.	Recent and Post-Tertiary.	
Nos. 19 to 28.	Miocene.	
No. 29	Middle Bagshot.	Eocene.
Nos. 30 to 42.	Lower Bagshot.	
Nos. 43 to 45.	London Clay.	
Nos. 46 to 48.	Woolwich and Reading series	
Nos. 49 to 51.	Cretaceous.	
Nos. 52 & 53.	Speeton Clay (Cretaceous and Jurassic ?).	
Nos. 54 to 61.	Wealden.	
Nos. 62 to 68.	Purbeck beds of Dorsetshire.	
Nos. 69 to 79.	Jurassic and Rhœtic.	
Nos. 80 to 84.	Triassic (Keuper).	
Nos. 85 to 90.	Permian.	
Nos. 91 to 115.	Carboniferous.	
Nos. 116 to 118.	Devonian.	
Nos. 119 to 123.	Silurian.	

They have been selected with the object of illustrating the characters bearing more especially on their economic applicability to ceramic manufactures.

Plastic strata may be defined as beds of mechanical origin, containing alumina as an essential constituent, which have undergone little or no consolidation, or been subject to metamorphic action.

Although common to various geological formations from the palæozoic to the most recent deposits, a very large proportion of plastic strata applicable to ceramic manufactures occur in the recent and tertiary beds.

Plastic strata diminish in frequency as the older deposits are approached: in the earlier palæozoic formations the beds which were at the time of deposition soft clays and marls occur for the most part as shales and slates, or have undergone further metamorphism into hard porcelanites and other altered rocks unavailable for the potters' use. Indeed the very changes which the potter effects by artificial heat have, as regards the earlier rocks, been anticipated in the laboratory of nature, pressure in combination with heat having altered their original soft and plastic condition, changing them into the hardest rocks.

It must not, however, be supposed that all clays of economic applicability occur in a soft and plastic state, as every gradation exists between hard metamorphic rocks and the softest clays, and many of the most valuable clays occur in a semi-indurated condition, are mined by the process of blasting, and brought to the surface in hard rock-like masses. These, by exposure to atmospheric changes and alternations of wet and drought, frost and thaw, are speedily, by the process known as "*weathering*," disintegrated and reduced to the plastic condition.

The state of mechanical subdivision is of no little importance in the applicability of clays to the various purposes of ceramic manufacture. A reference to the specimens will at once show that every gradation exists between an almost impalpable condition[*] and a mixture of coarse and fine matter, as in the bulk of the specimens, the coarse residue of which sometimes forms as much as 10 or 20 per cent. of the entire weight.

Bearing in mind that most clay-strata result from the mechanical disintegration of older rocks, it will be easily understood that their state of subdivision has been dependent for the most part on the transporting and sorting agencies of water, carrying away and separating the finer particles held longer in suspension than the coarse matter.

The origin of some of the finer white clays must, however, be attributed to the chemical dissolution of calcareous rocks by the agency of carbonated water, the insoluble silica, alumina, magnesia, &c., associated with carbonate of lime in chalk and limestone in the finest state of sub-division, being left behind as an impalpable residuum. The writer, in a paper on "The sources of the materials composing the white clays of the Lower Tertiaries," published in the "Quarterly Journal of the Geological Society" (vol. xxiii. p. 387), suggested such a derivation from the chalk, of the smooth clays of Bovey Tracey and Newton Abbot (Nos. 20–27), and of similar clays from the Lower Bagshot beds of Wareham (Nos. 30–38), and it seems scarcely open to question that the white clays resting on the carboniferous limestone of North Wales, Derbyshire, and Tipperary (Nos. 12–18) are the remnants of the subaerial dissolution of the limestone. (See papers on this subject by the writer at pp. 241 and 299, vol. iv., of The Geological Magazine).

The *chemical composition* of plastic strata varies as much as their mechanical condition. They may be generally described as an association of silicate of alumina, alumina, free silica, and magnesia, with more or less water of combination. Clays and marls scarcely ever occur entirely free from iron, to which their colour is mainly due; it exists in various states of combination, further referred to below. Carbonaceous matter, especially in the tertiary and carboniferous clays, is frequently associated in a fine state of subdivision, and the alkalies are generally present in variable proportions both as silicates and carbonates.

Contraction in burning.—This character is of so much importance in all branches of ceramic manufacture that it may be of interest to notice one or two features that the experiments exhibit.

The amount of contraction in burning, due partly to the loss of water of combination and of the carbonic acid in the carbonates, when present, and to the ignition of any carbonaceous matter contained in the clays, but more especially to the drawing together of the particles in the production of vitreous silicates, is very variable and depends both on the chemical and mechanical composition of the clays. The presence of the alkalies and iron tends to complete vitrification, which is always accompanied by a great amount of contraction, and the production of a glass-like body with a bright conchoidal fracture (as in No. 115). On the other hand, in clays containing much free silica or even silicate of alumina without the accompaniment of the fluxing alkalies, a small amount of contraction takes place and an open porous "body" is the result.

The amount of contraction is not less due to the state of mechanical subdivision of the constituent particles. Clays in a coarse state of subdivision and containing a large proportion of gritty matter, especially of silicious sand, invariably contract less in burning than those of smooth and fine texture, in which the constituents are in an impalpable state of subdivision; this will be at once seen by a comparison of the amount of contraction of the slabs composed of the coarse clay in its natural state with those moulded from the clays from which the coarse particles have been removed; and the larger the proportion of coarse matter in the native clay the greater is the difference between the amount of contraction of the clay in its natural and refined states. The average contraction of the whole of the burnt slabs composed of the native unrefined clay amounts to 6·01 per cent., and of the burnt slabs of refined clay 7·53 per cent. of the original moulded size. This appears due to two causes, firstly, that a mixture of large and small particles is, to begin with, actually more dense than a mass of particles of equal size,[†] and therefore admits of less contraction in the drawing together of the particles in vitrification, and, secondly, that the coarser subdivision and less intimate contact seems to hinder the recombination of the constituents as vitreous silicates in the process of burning.

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[*] As in examples 20, 21, 22, 23, 24, and 27 from the Bovey Tracey lignite deposit from the Newton Abbot Clay Works, and Nos. 30, 31, 32, 33, 34, 35, 36, 37, and 38 from the Lower Bagshot beds of Wareham, and also Nos. 43 and 123, from which the finest lawn failed to separate any gritty particles.

[†] Illustrated by the fact that a bushel of shot weighs the same as a bushel of bullets, but is exceeded in weight by a bushel of mixed shot and bullets, the small shot filling the vacancies between without displacing the larger spheres.

Few clays produce a perfectly vitreous and unabsorbent body. Some of the burnt slabs approach to a glassy texture, whilst others are so highly silicious and coarse in grain as to be held together by very slight cohesion. These are in the burnt state open and spongy, and have undergone but little contraction in the kiln. Such clays, as for example Nos. 108, 109, 110, 111, and 112 from the North Worcestershire coalfield, of which the celebrated Stourbridge fire-bricks are made, are from their refractory character eminently suitable for the manufacture.

The great majority of the examples are intermediate in character between these two extremes, and after the process of burning, form a compact but slightly porous body, subject to a moderate amount of contraction, and are available for general pottery purposes.

The Colouring Matter of Clays.—No native clay is entirely free from the presence of iron which occurs in aluminous earths in various proportions and states of combination. Those most free from iron are the white lower tertiary clays of Devon and Dorset, largely exported from Teignmouth and Poole for the manufacture of white earthenware; for this purpose the absence of iron is a matter of great importance, as it imparts to the ware a yellowish tint, to obviate which it is found necessary to cloak and neutralize the natural cream colour of the burnt clay by the admixture of very small proportions of cobalt blue.

Iron in the white and gray tertiary clays occurs principally in the form of gray carbonate of protoxide, generally in association with finely divided carbonaceous matter, in proportions varying from a mere trace up to 4 or 5 per cent.

Iron, which is so prejudicial in clays employed for white pottery, is an essential colouring matter in those used in the manufacture of terra cotta, encaustic tiles, bricks, and all common pottery.

These may be considered separately as—

(*a*) Gray clays.
(*b*) Yellow clays.
(*c*) Red clays.

(*a*) ***Gray clays***, so largely developed as "*clunches*" and fire-clays in the carbonaceous beds of the coal measures, owe their colour, in addition to the presence of carbonaceous matter, to carbonate of protoxide of iron in a fine state of subdivision, and occasionally to the presence of finely divided pyrites or bisulphide of iron (as in Nos. 45, 65, 70, 72, and 103), which also occurs in the London clay, gault, &c.

A pale gray clay, almost white (No. 61), from the base of the Ashdown Sands (Wealden), near Hastings, contains a much larger proportion of iron than its colour would seem to indicate, from its occurring in the form of the comparatively colourless basic sulphate, of which there is 1·68 per cent. present.

(*b*) ***Yellow clays*** are coloured by hydrous sesquioxide of iron, and generally occur as surface deposits, or where red and gray clays have been subject to weathering, as on exposed surfaces or along lines of jointing. They occasionally occur (*e.g.* No. 30) interstratified with red and gray beds, but appear more generally to be the result of a kind of rusting process. Gray carbonate of iron on exposure to watery infiltrations, accompanied by atmospheric oxidation, becomes converted into the yellow hydrous sesquioxide; and bisulphide of iron, which readily decomposes under similar circumstances, becomes converted partly into sulphate of protoxide and partly into hydrous sesquioxide, to the presence of which the yellow joint surfaces of the London clay and gault are due.

Yellow clays have also been derived from red beds by the red anhydrous sesquioxide and the lower hydrates receiving water of combination.

(*c*) *Red clays and marls*, *e.g.* those of the keuper, Old Red Beds, permian, coal measures, the middle wealden, the neocomian strata of France, the plastic clay of the London and Paris basins, and other tertiary strata, derive their colour from the presence of anhydrous sesquioxide and the lower hydrous oxides of iron which occur in variable proportions, and are generally associated with small quantities of iron in other states of combination, the colour of which the red oxide obscures. Red hæmatite may be cited as a familiar example of almost pure anhydrous sesquioxide of iron, which, when finely divided, has a strong colouring power. The red keuper marls receive their colour from about 3 per cent. of this anhydrous sesquioxide, whilst the red clays of the *argile plastique* of Paris, and of the neocomian beds of Beauvais, used in the manufacture of the celebrated Beauvais pottery, contain as much as 20 per cent., equivalent to 15 or 16 per cent. of metallic iron. Nearly all such red clays are variegated by lighter patches from which the oxide of iron has been abstracted; partly by a segregational process, drawing together the iron into ferruginous nodules of hydrous sesquioxide, and also from its dissolution by the acids of organic decomposition derived from imbedded organic remains. Details of the analysis of red and other clays will be found in a paper by the writer "On the disposition of iron in variegated strata," Quarterly Journal of the Geological Society, vol. xxix. p. 351.

The Colouring of Burnt Clays.—The colour of burnt ferruginous clays is entirely due to the amount of iron present, irrespective of its previous state of combination, but subject to certain conditions in the general composition of the clay. The action of the kiln, with some exceptions referred to below, is uniform on nearly every state of combination in which the iron occurs; viz., to reduce it to anhydrous sesquioxide associated as silicates in a more or less intimate state of combination with the other silicates developed in the process of burning.

Yellow clays coloured with hydrous sesquioxide (*e.g.* yellow ochre), as in No. 30, and red clays coloured with anhydrous sesquioxide, and the lower hydrates merely lose their water of combination and become bright brick reds (*e.g.* red ochre and venetian red).

Gray clays containing finely divided pyrites or bisulphide of iron are also converted by the kiln into bright reds, the sulphur being driven off, leaving the terra cotta charged with the red anhydrous sesquioxide.

In clays charged with gray carbonates of iron the following reaction takes place: The carbonic acid (CO_2) is driven off as carbonic oxide (CO), part of its oxygen peroxidising the iron.

Gray clays containing less than 1 or 1½ per cent. of iron change in the kiln to various shades of cream colour and buff, whilst those containing from 2 to 10 or 12 per cent. range in colour from yellowish-fawn to dark reds; from 3 to 4 per cent. of iron produces in the kiln the bright red bodies used in the manufacture of red terra cotta, encaustic tiles, red building bricks, &c. There seems to be no essential difference (with the exception noticed below) in the colouring matter of the clays that burn buff and those that burn red in the kiln, the depth of colour depending merely on the amount of iron present, the buff shades regularly graduating into the deeper shades of red.

The brightest shades of red and buff are, however, produced with but a partial vitrification of the body. At a heat sufficient to insure its complete vitrification a further change of colour takes place. The bright buff shades are changed to neutral grays, and the reds to a slaty-grayish-black, which probably results from a partial reduction of the metallic colouring matter and its more intimate combination with the other vitreous silicates produced at the higher temperature. In clays containing a large proportion of carbonaceous matter the complete peroxidation and consequent colouring power of the iron seems to be arrested. In No. 28, containing 13 per cent. of organic matter, the combustion of the carbon in contact with the ferruginous oxides seems wholly or partially to have reduced them to a metallic state, or lower oxide having less colouring power than the sesquioxide, and a remarkable bleaching of the burnt clay has been the result. The presence of the alkaline earths in ferruginous clays, especially of lime and magnesia, has also a singular bleaching power in the kiln, arresting the development of the bright red colour. No. 90, a permian marl containing 6 per cent. of sesquioxide of iron and 35 per cent. of carbonate of lime, burned of a grayish buff instead of the rich red such a proportion of iron would otherwise have produced. From some experiments made by the writer, it has been ascertained that as small a proportion as 5 per cent. of caustic magnesia mixed with a red clay entirely destroys its red colour in the kiln, probably from the production of a pale-coloured double silicate of iron and the alkaline earth. A familiar example of this reaction occurs in the process of manufacturing yellow bricks in the neighbourhood of London, the colour of which is dependent on the admixture of ground chalk with the brick earth, the brick earth by itself burning of a red colour.

CATALOGUE OF THE COLLECTION OF THE CLAYS AND PLASTIC STRATA OF GREAT BRITAIN,

WITH RESULTS OF EXPERIMENTS UPON THEM.

RECENT AND POST-TERTIARY.

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
1	Alluvial Clay (Mr. Heber Percy), Hodnet, Salop.	per cent. 9·	per cent. 8·	0·83	Employed for brickmaking.
2	Potters' Clay (Post-tertiary), Fremington, near Barnstaple, N. Devon, from the works of Mr. Fishley, Fremington.	12·	10·	Nil.	Extensively used in N. Devon for the manufacture of common pottery fired at a low heat. At a high temperature the ware becomes vesicular, and expands to such an extent that bricks made of it, when overfired, will float in water. For an account of the distribution and geological characters of the deposit, see a paper by the writer at p. 445 of the 20th vol. of Quarterly Journal of Geological Society.
3	Boulder Clay (Post-tertiary), south side of the Great Ormes Head, Carnarvonshire.	11·	10·	9·20	Contains transported blocks from various formations, and is very variable in character.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
4	Red Clay, of Post-tertiary age, Watcombe, near Torquay, from the estate of Mr. Allen, probably derived from the red beds (Trias ?) of South Devon.	per cent. 10·	per cent. 8·	2·96	Appears very suitable for the manufacture of red terra-cotta. An analysis made in the Laboratory of the Museum of Practical Geology indicated the following composition:— Silica - - 57·83 Alumina - - 20·55 Sesquioxide of iron 7·75 Oxide of manganese traces Lime - - 1·68 Magnesia - - 0·97 Potash - - 3·87 Soda - - 0·56 Carbonic acid - 0·90 Phosphoric acid - traces Organic matter (small quantity) and combined water. } 4·39 Hygroscopic water - 2·13 100·63
5	Blue Silty Clay (Post-tertiary), from a depth of 12 feet under Severn Valley Alluvium, Bridgnorth Gasworks, Shropshire.	3·	3·	6·68	

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse matter.	Remarks.
6	Alluvial Clay, overlying blue silty clay (No. 5), from gasometer excavation, Bridgnorth Gasworks, Shropshire.	per cent. 8·	per cent. 11·	80·17	
7	Red Surface Clay (Post-tertiary) overlying chalk, probably derived from the Woolwich and Reading series, near West Lulworth, Dorsetshire.	18·	15·	10·12	Remarkable for its great contraction in the kiln.
8	White Bed (Post tertiary), forming the top stratum of the bed of Llyn-Cwm, Bychan, 5 miles S.E. of Harlech, Merionethshire, from Mr. S. J. Hennis.	11·	12·	1·83	
9	Dark Bed (Post-tertiary), forming the bottom stratum of the bed No. 8 of Llyn-Cwm, Bychan, 5 miles S.E. of Harlech, Merionethshire, from Mr. S. J. Hennis.	12·	11·	1·97	
10	Yellow Surface Clay, overlying Mountain Limestone, Glan Alyn Mine, Colomendy, near Mold.	5·	5·	Nil.	

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse matter.	Remarks.
11	Red Clay, probably of Post-tertiary age, from cavities in the Carboniferous Limestone, Nant-y-Garmer, near Llandudno.	per cent. 10·	per cent. 3·	7·86	
12	White Clay, probably of Post-tertiary age, from cavities in the Carboniferous Limestone, Nant-y-Garmer, near Llandudno.	10·	3·	7·86	Occurs in egg-shaped pockets or cavities throughout the mountain limestone district of N. Wales, Derbyshire, and Staffordshire.
13	White Clay (Post-tertiary), from pocket in Mountain Limestone above Longrake Mine, Halkin Mountain, near Holywell, Flintshire.	4·	5·	2·54	Of similar character to Nos. 11 and 12 from Llandudno. For the geological characters and geographical distributions of the deposits, see papers by the writer in the Geological Magazine for May 1865, and June and July 1867.
14	Gray Clay (Post-tertiary), from pocket in Mountain Limestone above Longrake Mine, Halkin Mountain, near Holywell, Flintshire.	7·5	6·5	0·0013	
15	White Clay (Post-tertiary), from pockets in Mountain Limestone, Pant Du, Llanferris, Denbighshire.	5·	4·	0·65	Of similar character to Nos. 11, 12, 13, and 14, from Llandudno and Halkin Mountain.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
16	Dark Clay (Post-tertiary), from pockets in Mountain Limestone, Pant Du, Llanferris, Denbighshire.	per cent. 13·	per cent. 9·	10·53	
17	White Post-tertiary Clay, overlying Mountain Limestone, and resulting from its subaerial dissolution, Colomendy, near Mold.	3·	2·	0·733	Employed for the manufacture of fire-bricks and pottery.
18	White Post-tertiary Clay, overlying Mountain Limestone, and resulting from its subaerial dissolution, Colomendy, near Mold.	0·25	0·25	10·9	Employed as fire-clay for furnace work.
	MIOCENE.				
19	Best "*Pipe Clay,*" Bovey Tracey, Lignite deposit, from the works of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	13·	12·	Nil.	This and the following clays (Nos. 19 to 28) are employed for pottery purposes, and are remarkable for their plastic property, their great contraction in the kiln, and the almost entire absence of coarse gritty particles. A small per-centage of iron is present and occurs in the condition of carbonate of protoxide.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		Respecting the probable source of the materials composing these clays and similar plastic clays (Nos. 30 to 42) from the Lower Bagshot beds of Dorsetshire, see a paper by the writer at p. 387 of the 23rd vol. of the "Quarterly Journal of the Geological Society."
20	"*Cutty Clay,*" Bovey Tracey, Lignite deposit of Miocene Age, from the Mines of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	9·	8·	Nil.	
21	"*Household Clay,*" Bovey Tracey, Miocene Lignite deposit, from the Mines of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	6·	5·	Nil.	Employed for "whitening" stone-steps and pavements.
22	"*Stoneware Clay,*" Bovey Tracey, Miocene Lignite deposit, from the Mines of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	7·		Nil.	Employed in the manufacture of stoneware.
23	"*Alum-makers' Clay,*" Bovey Tracey, Miocene Lignite deposit, from the Mines of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	9·	7·	Nil.	Employed for pottery purposes and in the manufacture of alum. Contains about ½ per cent. of protoxide of iron.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		
24	"*Drain-pipe Clay*," Bovey Tracey, Miocene Lignite deposit, from the Mines of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	3·	4·	Nil.	Used in the manufacture of drain-pipes and other common purposes. From being stained with hydrous sesquioxide of iron is not available for the manufacture of white earthenware.
25	"*Blue Ball Clay*," Bovey Tracey, Miocene Lignite deposit, from the Mines of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	14·	13·	0·04	An analysis given by Mr. C. D. Blake indicated the following composition :— Silica - - 47·0 Alumina - - 48·0 Oxide of iron - 1·5 Magnesia - - 2·0 Water and waste - 1·5 100·0 (Judging from the pale colour the clay burns in the kiln the amount of oxide of iron appears to be overstated.) This clay is extensively used in the potteries in the manufacture of white earthenware.
26	"*BlackBallClay*," Bovey Tracey, Miocene Lignite deposit, from the Mines of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	12·	11·	0·57	Employed for pottery purposes. Colour probably due to carbonaceous matter.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
27	"*Brown Ball Clay,*" Bovey Tracey, Miocene Lignite deposit, from the Mines of Messrs. Watts, Blake, Bearne, and Co., Newton Abbot.	per cent. 11·	per cent. 11·	Nil.	Employed for pottery purposes. An analysis indicated a composition of ⅔ silica, ⅓ alumina, and traces of magnesia, oxide of iron, and carbonaceous matter.
28	Black Carbonaceous Clay (Miocene), Bovey Tracey, Lignite deposit, worked by the Devon and Courtney Clay Company, near Newton Abbot, Devonshire.	10·	10·	3·57	The refined clay contains by an analysis by Dr. Voelcker, as much as 11·99 per cent. of carbon, and the coarse matter 33·96 per cent. The clay in its natural state would contain on an average about 13 per cent. of carbon. The extreme whiteness of the burnt examples is due to the reduction of the sesquioxide of iron in the kiln by reaction with the carbonaceous matter.
			EOCENE.		
29	Clay underlying Lignite (Middle Bagshot Beds), railway cutting, Goldsworthy, 1¼ miles W.S.W. of Woking Junction.	5·	3·	5·10	Strata Nos. 6 and 7 in Mr. Prestwich's section of Goldsworthy Hill given at pp. 382–3 of the 3rd vol. of the Quarterly Journal of the Geological Society of London.
30	Red Plastic Clay, Messrs. Pike's Clay Works, near Wareham, Lower Bagshot Beds, Eocene: occurs in irregular alternation with bright yellow clay, the	15·	14·	Nil.	The iron in this clay appears to occur principally as anhydrous sesquioxide with a small quantity of protoxide, the patches of bright yellow with which it is interposed being the result of the red sesquioxide becoming hydrous. The per-centage of iron varies con-

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
	whole interstratified with white and gray clays, sands, and lignites.	per cent.	per cent.		siderably in different examples; one analyzed in the Laboratory of the Museum contained— Total iron {soluble - 2·061, insoluble - 0·459} 2·52 per cent. Present as peroxide of iron - 2·944 " " protoxide, soluble - 0·010 " " protoxide, insoluble - 0·590 " Another example analyzed by Dr. Voelcker contained iron as sesquioxide 5·28 per cent. This clay is employed to a small extent in the manufacture of encaustic tiles, and is remarkable for its undergoing great contraction in the kiln.
31	White Clay, Messrs. Pike's Clay Works, near Wareham, Lower Bagshot Beds, Eocene.	11·		Nil.	Fires of a light cream colour and is employed for various pottery purposes.
32	Messrs. Pike's "*T*" Clay, Lower Bagshot Beds, Wareham.	11·	11·	Nil.	Employed for pottery purposes. This and the following clays are remarkable for their great contraction in the kiln, and the almost entire absence of coarse gritty particles. The iron, of which a small amount is present, probably occurs as carbonate of protoxide.
33	Messrs. Pike's "*V*" Clay, Lower Bagshot Beds, Wareham.	13·	13·	Nil.	
34	Messrs. Pike's "*Black Clay*," Lower Bagshot Beds, Wareham.	13·	13·	Nil.	Coloured with carbonaceous matter, which burns out in the kiln.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
35	Messrs. Pike's "*Blue Clay,*" Lower Bagshot Beds, Wareham.	per cent. 14·	per cent. 13·	Nil.	Contains about 60 per cent. of silica, 34 per cent. of alumina, 2 per cent. of potash, and small amounts of oxide of iron and water of combination.
36	Messrs. Pike's "*H*" Clay, Lower Bagshot Beds, Wareham.	14·	15·	Nil.	
37	Messrs. Pike's "*P*" Clay, Lower Bagshot Beds, Wareham.	14·	15·	Nil.	
38	Messrs. Pike's "*S*" Clay, Lower Bagshot Beds, Wareham.	7·	7·	Nil.	
39	Yellow Clay, Lower Bagshot Beds (Eocene), Messrs. Pike's Clay Works, near Wareham.	10·	9·	0·166	The state of combination of the iron in an example analyzed in the Laboratory of the Museum of Practical Geology was found to be as follows:— Total iron $\left\{\begin{array}{ll}\text{soluble} & \text{- } 5{\cdot}382\\ \text{insoluble} & \text{- } 0{\cdot}361\end{array}\right\} 5{\cdot}743$ Present as sesquioxide of iron - - 7·69 " protoxide of iron, a trace. " oxides of iron (insoluble) weighed as protoxide - 0·465 The bright yellow colour of this clay is due to the sesquioxide of iron being hydrous. It is associated with the blood-red Clay, No. 30, and the yellow colour appears to be a secondary product of the red from the hydration of the anhydrous sesquioxide. The bed

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		belongs to the same series as those which produce the light clays, Nos. 32 to 38. Both the blood-red and yellow clays are employed in the manufacture of encaustic tiles, and are worth from 7*s*. to 10*s*. per ton, free on board at Poole Harbour.
40	Clay from upper "Plant Bed," Lower Bagshot Beds, Studland Bay, Dorsetshire.	7·	6·	1·25	Of a similar character to the clays from Messrs. Pike's pits at Corfe, Nos. 30 to 42.
41	Mottled Red and Yellow Clays (Eocene), Lower Bagshot Beds, Messrs. Pike's Clay Works, Corfe, near Wareham, Dorset.	6·	5·	1·66	The red colour is due to anhydrous, and the yellow to hydrous sesquioxide of iron.
42	Mottled Sandy Clays (Eocene), Lower Bagshot Beds, Messrs. Pike's Clay Works, Corfe, near Wareham, Dorset. Analyses by Professor Way of "White Pipe Clay," and "Black Clay" from the Lower Bagshot Beds of Branksea Island, Dorsetshire, are given at page 167 of the 3rd edition of the Catalogue of Rock Specimens.	1·	0·	24·8	Contains a quantity of small pea-shaped concretions of sesquioxide of iron.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
43	London Clay, Bawdsey Cliff, near Harwich.	per cent. 9·	per cent. 11·	0·03	The iron occurs in the following states of combination:— Iron mostly as protoxide, but with traces of basic sulphate of peroxide and sulphate of protoxide } 1·68 per cent. Iron - 0·481 } iron pyrites 1·031 ,, Sulphur - 0·550 }
44	London Clay (Eocene), two miles west of Bognor, Sussex.	10·	10·	6·33	For states of combination of the iron, see analysis of No. 43.
45	London Clay, Studland Bay, Dorsetshire (Eocene).	3·	3·	1·0	See No. 43, London clay, Bawdsey Cliff, Suffolk.
46	Plastic Clay, Mottled Beds, Woolwich and Reading series, east of Arundel, Eocene.	9·	9·	1·13	For analysis of the states of combination of the iron in the various coloured portions of these beds as developed in the Paris basin, see a paper by the writer in vol. xxiv. of the Quarterly Journal of the Geological Society of London, pp. 372 and 373.
47	Gray Beds, Woolwich and Reading series (Eocene), South of Arundel Station, Sussex.	3·	5·	1·12	
48	Mottled Clay, Woolwich and Reading series, Studland Bay, Dorsetshire, Lower Eocene.	3·	2·	—	See No. 46, and paper in the Quarterly Journal of Geological Society by the writer, vol. xxiv. pp. 372 and 373.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
			CRETACEOUS.		
49	"Fuller's Earth." Sandgate Beds of Lower Greensand, between Red Hill and Nutfield, Surrey.	per cent. 11·	per cent. 13·	13·95	
50	Gault, Cretaceous, cutting of Petworth Railway, near Fettleworth, Sussex.	8·	8·	2·04	
51	Gault (Cretaceous), north side of Swanage Bay, Dorsetshire.	7·	7·	26·25	See also No. 50.
52	Speeton Clay, Cretaceous (cement stone bed), Speeton, near Filey, Yorkshire.	11·	8·	1·33	The bed marked "f" in Mr. Judd's map, and considered to be the equivalent of the upper neocomian (cretaceous).
53	Speeton Clay, Oolitic ("coprolite bed"), Speeton, near Filey, Yorkshire.	11·	6·	9·16	The bed marked "o" in Mr. Judd's map at p. 230 of vol. xxiv. of the Quarterly Journal of the Geological Society of London, and probably the equivalent of the Kimmeridge clay.
			WEALDEN.		
54	Weald Clay, Wealden, resting on Horsham Stone, near Horsham, Sussex.	9·	4·	2·375	

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		
55	Weald Clay, Wealden, from a cutting of the London and Brighton Railway, three miles south of Red Hill, Surrey.	9·	4·	3·30	
56	Wealden Clay, east side of Lulworth Cove, Dorsetshire.	6·	4·	2·0	Probably from a lower horizon than the " Weald clay " of Sussex.
57	Red Mottled Wealden Clay, Swanage Bay, Dorsetshire.	9·	7·	20·0	
58	Gray Wealden Clay, Swanage Bay, Dorsetshire.	7·	5·	19·60	
59	Dark Gray Clay, Wealden, Church-Knowle, near Corfe, Dorsetshire.	2·	2·	3·93	
60	Red Clay, Wealden, Church-Knowle, near Corfe, Dorsetshire.	7·	5·	1·55	
61	White Pipe-clay, base of Ashdown Sands, foot of East Cliff, Hastings.	10·	8·	1·19	Contains basic sulphate of iron, 1·68 per cent.; bisulphide of iron, 0·094 per cent. For the chemical characters of this clay see a paper by the writer on the disposition of iron in variegated strata, Quarterly Journal of the Geological Society, vol. xxiv. pp. 378 and 379.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
	PURBECK.				
		per cent.	per cent.		
62	Shaly Clay, interstratified with Upper Purbeck Marble, Woody-Hyde, near Swanage, Dorsetshire.	7·	3·	24·38	
63	Pale Shaly Clay, interstratified with Upper Purbeck Marble, Peverel Point, near Swanage, Dorsetshire.	1·	—	9·1	
64	Black Shaly Clay, separating Corbula beds, Middle Purbeck, Durdleston Bay, Swanage, Dorsetshire.	9·	6·	9·0	
65	Clay above the "Dirt-bed," near base of Middle Purbeck, Durdleston Bay, Swanage, Dorsetshire.	—	—	30·0	
66	Hard Marl under "Dirt-bed," upper part o fLower Purbeck, Durdleston Bay Swanage, Dorsetshire.	3·	1·	20·5	

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
67	Blue Marl, Lower Purbeck, Durdleston Bay, Swanage, Dorsetshire.	per cent. 12·	per cent. 9·	14·87	
68	Gypseous Marls, "Soft Cockle Beds," Lower Purbeck, Durdleston Bay, Swanage, Dorsetshire.	13·	8·	6·85	
			OOLITIC.		
69	Kimmeridge Clay, Oolitic, between Hillmarton and Compton, near Calne, Wilts.	8·	8·	4·77	Employed for making coarse pottery and bricks; contains according to an analysis by Dr. Voelcker— Protoxide of iron - 2·08 per cent. Sesquioxide of iron - 4·32 „ Bisulphide of iron - 1·42 „ Carbonate of lime - 4·28 „ Sulphate of lime - 5·34 „ and crystals of selenite distributed through the mass of the strata.
70	Kimmeridge Clay (Oolite), Chapman's Pool, near Kimmeridge, Dorsetshire.	—	1·	10·14	Contains, according to an analysis by Dr. Voelcker— Protoxide of iron - 1·45 per cent. Sesquioxide of iron - 1·04 „ Bisulphide of iron - 0·86 „ Sulphate of lime - 0·35 „ Carbonate of lime - 34·28 „

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		In comparing this with the example (No. 69) from Calne it will be observed that it contains much more carbonate of lime and less oxide of iron. The pale colour to which it burns in the kiln is due to the presence of the carbonate of lime. The reaction of the alkaline earths with oxide of iron in the production of light-coloured silicates has already been referred to in the introduction.
71	Blue Clay, interstratified with Oolitic Freestone (Calcareous Grit or Coral Rag), Temple Combe, Somersetshire.	7·	6·	12·15	
72	Oxford Clay, Oolitic, Brick Works, canal bank, near Chippenham, Wilts.	4·	5·	2·18	Contains, according to an analysis by Dr. Voelcker— Protoxide of iron - 1·12 per cent. Sesquioxide of iron - 3·25 „ Bisulphide of iron - 1·10 „ Sulphate of lime - 1·37 „ and crystals of selenite distributed through the mass of the strata.
73	Oxford Clay (Oolitic), Scarborough.	—	—	4·5	(See analysis given of Oxford clay, No. 54.)
74	Blue Clay under White Limestone of Great Oolite, Dallington, near Northampton.		4·	0·57	

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
75	Shaly Clay Bed within Great Oolite, near Dallington, Northampton.	per cent. 1·	per cent. 2·	2·26	
76	Clay in "Upper Shale and Sandstone" (Oolite), near Scarborough.	5·	5·	10·	
	LIAS.				
77	Top of Upper Lias, Kingsthorpe Brick Pit, Northampton.	9·	6·	0·85	
78	Blue Clay, interstratified with Lias Limestone (Lima Beds, Lower Lias), Messrs. Greaves and Kershaw's Quarry, Harbury, near Warwick.	7·	6·	12·58	
	RHŒTIC.				
79	Rhœtic Beds, "Paper Shales," Audlem, Cheshire.	3·	1·	1·85	

Clays and Plastic Strata of Great Britain, &c.—*continued.*

	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks
	TRIAS.				
80	Red portion of Keuper Marls, Worcester Railway Station.	per cent. 8·	per cent. 6·	51·76	Occasionally employed for brickmaking. The following are the compositions of Nos. 80 and 81 as indicated by analyses by Dr. Voelcker:—
81	Gray portion of Keuper Marls, Worcester Railway Station.	11·	·1	58·95	

	No. 80.	No. 81.
Water of combination	4·45	3·71
Protoxide of iron	1·60	1·77
Sesquioxide of iron	2·41	0·80
Bisulphide of iron	0·059	0·029
Alumina	11·14	12·77
Lime	4·85	3·71
Magnesia	3·06	2·17
Potash	0·69	0·71
Soda	Traces	0·02
Sulphuric acid	0·09	0·08
Carbonic acid and loss	3·311	4·741
Alumina	9·39*	11·72†
Silica	53·62*	53·40†
Oxides of iron	0·78*	0·99†
Lime	0·64*	0·61†
Magnesia	1·69*	1·11†
Alkalies and loss	2·22*	1·66†
	100·00	100·00

* Insoluble in hydrochloric acid, 68·34.

† Insoluble in hydrochloric acid, 69·49.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		
82	Red Keuper Marl, Brick Works, Hartlebury Railway Station, Worcestershire.	12·	11·	6·17	Employed for making bricks and draining-pipes. See analysis of Keuper Marls, Nos. 80 and 81, from Worcester Station.
83	Gray band in Keuper Marls, Brick Works, Hartlebury, Railway Station, Worcestershire.	7·	7·	12·13	
84	Saliferous Keuper Marls (Trias) over Rock Salt, Hayes' Pit, Marston, near Northwich, Cheshire.	5·	4·	5·56	
	PERMIAN.				
85	Red Marl, probably of Permian (or Carboniferous) age, penetrated in sinking the Kemberton Coal Pits near Madeley, Shropshire, occurring at a depth of 70 feet.	4·5	3·0	9·97	
86	Permian Red Clay, Bulwell, near Nottingham.	14·	11·	5·58	

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
87	Red portion of variegated Permian Marl, near Linley Station, Severn Valley Railway.	per cent. 13·	per cent. 9·	1·45	See plate xii., fig. 16, vol. xxix. of Quarterly Journal of Geological Society. Analysis by Dr. Voelcker :— Water of combination - - 2·79 Sesquioxide of iron - - - 3·23 Protoxide of iron - - - 1·35 Bisulphide of iron - - - 0·02 Carbonate of lime - - - 4·15 Sulphate of lime - - - 0·17 Alumina - - - - 3·95 Magnesia - - - - 2·17 Alkalies and loss - - - 1·22 Matter, exclusive of the iron, insoluble in hydrochloric acid. 80·95 100·00 No. 90 is merely an altered condition of No. 87 from the infiltration of carbonate of lime from the overlying calcareous band. Although containing more oxide of iron, it burns of a much lighter colour. The reaction of the alkaline earths with clays containing oxide of iron in the kiln in producing light-coloured combinations has already been noticed in the introduction.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		
88	Red Gypseous Marl (Permian), over Magnesian Limestone, between Whitehaven and St. Bees Head, Cumberland.	5·	1·	3·68	
89	Red clay, Permian, Coalport Station, Severn Valley Railway.	10·	3·	2·07	
90	Ochreous portion of Variegated Permian Marl from under Calcareous band, near Linley Station, Severn Valley Railway.	3·	1·	32·50	See plate 12, fig. 16, vol. xxiv. of Quarterly Journal of Geological Society, representing the section. Analysis by Dr. Voelcker :— Water of combination - - 1·38 Sesquioxide of iron - - - 6·482 Protoxide of iron - - - 0·309 Sulphur - - - - 0·039 Carbonate of lime - - - 35·58 Magnesia - - - - 0·91 Alkalies and loss - - - 0·35 Alumina - - - - 2·44 Matter, exclusive of the iron, insoluble in hydrochloric acid. 52·51 100·00

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
			CARBONIFEROUS.		
91	Red Clay (Upper Shropshire Coal-measures) over fresh-water Limestone near Linley, Shropshire.	per cent. 11·	per cent. 8·	1·32	
92	Red Marl, Shopshire Coal-measures occurring, as a bed about 5 feet thick from 20 to 30 yards above the "*Sulphur Coal,*" Broseley Green.	14·	2·	5·74	Employed extensively in the manufacture of encaustic tiles in association with more refractory clays. Burns of a dull red colour, contains a large proportion of iron, principally as a combination of hydrous and anhydrous sesquioxide, occasionally blotched and seamed with dull buff patches which contain a smaller proportion of iron than the general red matrix. An example of the red portion examined by Dr. Voelcker was found to contain 7·54 per cent. of sesquioxide of iron. Another example analyzed by Messrs. Johnson and Sons contained as much as 8·64 per cent. of iron, present principally as sesquioxide with about half per cent. of protoxide.
93	Gray buff patches and seams in No. 92	10·	6·	1·10	Of the dull buff patches the following are analyses, viz. by *a.* Messrs. Johnson and Sons:— Protoxide of iron - 0·90 Sesquioxide - - 4·20 } Metallic iron 4·01 Silicate - - 0·54

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		*b.* Museum of Practical Geology, another example :— Total iron - $\left.\begin{matrix}\text{Soluble } 1·73\\ \text{Insoluble } 0·68\end{matrix}\right\}$ Metallic iron 2·41 Present as sesquioxide of iron - - 1·81 Protoxide of iron, soluble - - - 0·60 Protoxide of iron, insoluble - - 0·88
94	"*Brick Clay*," Shropshire Coal-measures, Broseley; occurs as a stratum from 8 to 12 feet thick, overlying the tile clays Nos. 95 and 96.	0·	1·	21·35	Mined as a hard rocky mass and obtained from shafts by blasting. On exposure to the weather it is readily reduced to a plastic condition, and is extensively used in the manufacture of the celebrated brown Broseley bricks, which, though inferior in colour, are much more durable than ordinary red bricks. From the small amount of contraction of the clay in the kiln, the bricks retain an even form and uniform size in the burning.
95	Gray Clay, occurring as patches and seams in the Red Clay No. 96, Shropshire Coal-measures, Calcotts, near Broseley.	1·5	1·	7·80	
96	Red Clay, occurring as a stratum 7 or 8 feet thick, at about the middle of the Shropshire Coal-measures, Calcotts, near Broseley.	8·	2·	3·63	Occurs as a hard rocky mass, and is obtained from shafts by blasting. On exposure to the weather it is readily reduced to a plastic condition, and is extensively used in the manufacture of encaustic tiles, roofing tiles, and various articles of architectural pottery. Its composition was determined by Mr. D. Forbes as follows, after the coarse particles (3·63 per cent.)

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		had been removed by passing through a fine lawn sieve :— Silica { combined 29·71, free - - 34·35 } 64·06 Titanic acid - - - 0·62 Alumina - - - - 20·60 Sesquioxide of iron - - - 6·84 Protoxide of iron - - - 0·32 Protoxide of manganese - - 0·09 Lime - - - - 0·12 Magnesia - - - - 0·04 Potash - - - - 0·91 Soda - - - - 0·44 Water, with traces of organic matter 5·85 99·89
97	"*Pennystone Mount,*" matrix of "Pennystone" ironstone, Shropshire Coal-measures, Benthall, Broseley. Stratum usually about 6 feet thick. Concretionary nodules of carbonate of iron prevalent in the upper part.	6·	5·	0·35	Dark gray and of a rich ochreous brown after burning. An example analyzed by Dr. Voelcker contained 3·75 per cent. of protoxide of iron as carbonate. Used in the manufacture of encaustic tiles.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
98	Fireclay (Carboniferous), between the Pennystone measure and "Vigors coal," Shropshire Coal-measures, near Broseley.	per cent. 2·	per cent. 1·	8·65	
99	Two-foot Coal Fireclay, Shropshire Lower Coal-measures, Benthall, near Broseley; occurring under the coal.	6·	5·	3·75	Colour dark gray, due to the presence of diffused carbonaceous matter. Burns of a pale buff or cream colour. Is employed in the manufacture of fire-bricks, common "yellow ware" pottery, and encaustic tiles. The iron, present in small quantities, occurs principally as carbonate of protoxide.
100	Ganie-coal Fireclay, Shropshire Lower coal-measures, Benthall, near Broseley. The underclay usually about 2 feet thick, with occasional small concretions of carbonate of iron in nodules.	3·	2·	0·77	Colour gray, partly due to the presence of carbonaceous matter. Burns of a pale buff or cream colour; is one of the most refractory clays of the Shropshire coal-measures, and employed in the manufacture of bricks and encaustic tiles; from an analysis by Dr. Voelcker, contained 1·48 per cent. of protoxide of iron, as carbonate.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
	Red Clay, Wyre Forest Coalfield. From cutting in the Bewdley and Tenbury Railway, Worcestershire.	per cent. 17·	per cent. 10·	3·48	Remarkable for its great contraction in burning, which, with the exception of No. 7, exceeds that of any other clay or marl included in the series. Occasionally blotched with greenish buff. The following is an analysis by Dr. Voelcker of the red and greenish-buff part of a similar red bed of the same coalfield, exposed in a cutting of the Severn Valley Railway, near Arley Station :— *Red portion.* (Soluble) : Water of combination - 6·32 Sesquioxide of iron - - 12·21 Protoxide of iron - - - 0·40 Bisulphide of iron - - - 0·11 Alumina - - - - 17·57 Sulphate of lime - - - 0·07 Lime in a state of silicate - - 0·71 Magnesia - - - - 2·22 Potash and soda - - - 0·56 Insoluble silicates, 60·29. Silica 50·23 Sesquioxide of iron - - 1·19 Alumina - - - - 6·33 Lime - - - - 0·71 Magnesia - - - - 0·37 Alkalies and loss (insoluble) - 1·46 100·46

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
		per cent.	per cent.		Analysis of gray blotches by Dr. Voelcker :— (Soluble) : Water of combination - 4·49 Sesquioxide of iron - - 3·44 Protoxide of iron - - - 0·61 Bisulphide of iron - - - 0·022 Alumina - - - - 5·33 Sulphate of lime - - - 0·15 Lime in a state of silicate - - 0·71 Magnesia - - - - 0·73 Potash and soda - - - 0·24 Insoluble silicates, 84·35. Silica - - - - 65·30 Sesquioxide of iron - - - 1·59 Alumina - - - - 14·33 Lime - - - - 0·52 Magnesia - - - - 0·34 Alkalies and loss - - - 2·27 100·07
102	Gray Mottled Clay, Wyre Forest Coalfield, Worcestershire.	10·	7·	5·26	
103	Hard Gray Clay, Wyre Forest Coalfield, Worcestershire.	6·	5·	0·65	Burns red in the kiln. The iron appears to occur principally as carbonate with a small quantity of bisulphide, which peroxidize in burning.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
104	Fireclay, No. 1, Bewdley Forest Coal-measures. From the works of Mr. Mobberley, Wyre Forest, Bewdley, Worcestershire.	per cent. 2·	per cent. 3·	4·13	Employed as a fireclay in the Worcester Porcelain Works, but contains more oxide of iron, and is less refractory than the Stourbridge clay.
105	Fireclay, No. 2, Bewdley Forest Coal-measures. From the works of Mr. Mobberley, Wyre Forest, Bewdley, Worcestershire.	8·	4·	7·79	
106	Fireclay, No. 3, Bewdley Forest Coal-measures. From the works of Mr. Mobberley, Wyre Forest, Bewdley, Worcestershire.	2·	1·	9·65	
107	Red Brick Clay, Worcestershire Coal-measures, Messrs. Fisher Brothers, The Hayes, Stourbridge.	4·	3·	7·50	Employed in brickmaking.
108	Stourbridge Fireclay, Worcestershire Coal-measures, No. 1, of Messrs. Fisher Brothers, The Hayes, Stourbridge.	2·	1·	4·52	The material composing the celebrated refractory "Stourbridge fire-bricks," remarkable for the small amount of contraction in the kiln.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
109	Stourbridge Fireclay, Worcestershire Coal-measures, No. 2, of Messrs. Fisher Brothers, The Hayes, Stourbridge.	per cent. 2·	per cent. 1·	0·45	Another variety of the same clay.
110	"Seconds" Fireclay from the Earl of Dudley's Coal Pits, near Dudley, Worcestershire.	2·	1·	7·33	Resembling the "Stourbridge" fireclay.
111	"Best" Fireclay from the Earl of Dudley's Coal Pits, near Dudley, Worcestershire.	3·	2·	13·05	Resembling the "Stourbridge" fireclay.
112	"Offal" Fireclay from the Earl of Dudley's Coal Pits, near Dudley, Worcestershire.	3·	1·	10·33	Resembling the "Stourbridge" fireclay.
113	Fireclay (Carboniferous), Coal-measures from the neighbourhood of Maryport, Cumberland.	5·	4·	49·52	
114	Red Clay (Carboniferous), interstratified with Carboniferous Limestone, Trevor, near Llangollen, Denbighshire.	4·	3·	2·83	

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
115	Carboniferous Shale interstratified with Mountain Limestone, Glan Alyn Mine, Colomendy, near Mold.	per cent. 12·	per cent. 3·	11·3	Produces a close vitreous body in burning.
	DEVONIAN.				
116	Red Marl, Old Red Sandstone, railway cutting, Ledbury, Herefordshire.	8·	5·	0·65	Colour due to the presence of about 7 per cent. of iron, occurring principally as anhydrous and hydrous sesquioxide and a small quantity of protoxide.
117	Variegated Old Red Sandstone Marl, green blotches on a red ground, railway cutting, Ledbury, Herefordshire.	7·	6·	0·40	Contains somewhat less iron than the dull red marl, present almost wholly as hydrous sesquioxide.
118	Old Red Sandstone Marls, between Linley and Bridgnorth, Shropshire.	8·	7·	1·04	The red portions of this marl contain 9·0 per cent. of sesquioxide of iron and 0·9 per cent. of protoxide; the buff blotches 8·60 per cent. of sesquioxide and 0·54 per cent. of protoxide. The sesquioxide in the red marls appears to be anhydrous or a low hydrate, and that in the buff portions in the hydrous condition.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
			SILURIAN.		
		per cent.	per cent.		
119	Dun-coloured Marl interstratified with Aymestry Limestone (Upper Silurian), The Dunge, near Broseley, Shropshire. -	8·	7·	1·04	
120	Wenlock Shale, Upper Silurian, Lime Works between Harley and Wenlock Edge (about the middle of the Wenlock Shale).	6·	6·	2·22	Contains, according to an analysis by Messrs. Johnson and Sons :— Protoxide of iron - - - 1·80 Sesquioxide of iron - - - 7·00 Insoluble oxides of iron - - 0·35 Carbonate of lime - - - 7·50 besides nodules of segregated carbonate of lime.
121	Purple Bed (Upper Silurian), base of Wenlock Shale, near Little Stretton, Salop.	12·	6·	3·53	This bed contains :— Protoxide of iron - - - 0·72 Sesquioxide - - - - 7·70 Insoluble oxides of iron, probably silicates. 0·75 Carbonate of lime - - - 7·5 See Quarterly Journal of Geological Society, vol. xxiv. p. 382, and fig. 51, p. 383.

Clays and Plastic Strata of Great Britain, &c.—*continued.*

No.	Description, Locality, &c.	Shrinkage of Refined Clay.	Shrinkage of Coarse Clay.	Per-centage of Coarse Matter.	Remarks.
122	White Saponaceous bed (Upper Silurian), middle of Wenlock Shale, between Horderley and Plowden, Shropshire.	per cent. 12·	per cent. 7·	5·01	The composition, according to an analysis by Mr. Forbes, is as follows:— Water - - - 13·88 Carbonic acid - - 4·88 } 11·10 carbonate of lime. Lime - - - 6·22 } Silica - - - 45·48 Alumina - - - 23·52 Protoxide of iron - 1·76 Protoxide of manganese - 0·07 Magnesia - - 1·44 Potash - - - 2·15 Soda - - - 0·54 The appearance of this substance closely resembles some forms of steatite, and many minerals which from their unctuous texture are considered to be highly magnesian.
123	Dark bed near the base of Wenlock Shale, resting on Pentamerus Limestone, near Harley, Salop.	10·	9·	14·57	

APPENDIX B.

A Brief Account of the Evidence given on behalf of Edmund Warner, *at a* Tryal *had at the Bar the 24th of* November 1693, *before the Four Barons of the* Exchequer, *relating to a Parcel of* Potters Clay, *seized by the* Custom-House *Officers, under the pretence of it's being* Fullers-Earth.

William Riddal swore that he was Steward and Tenant to the said *Warner* for above 20 Years, in all which time the said *Warner* constantly sold to the Potters in *London* considerable quantities of the same sort of clay now in dispute, for the making of White and Painted Earthen-Ware: That he never knew or heard that the least Parcel of it was ever sold as Fullers-Earth, or put to any other Use than making Earthen-Ware, excepting some small quantities yearly in the Neighbourhood for daubing of Houses, which may be alleged as a good Argument that the said Clay is not of the nature of Fullers-Earth; for, whereas this makes the best Clay Wall in *England*, if it were of the nature of Fullers-Earth, upon the first wet Weather it would all fall to the Ground: He likewise farther deposed, That the first time the said *Warner* shipt the said Clay for *Holland*, it was seized by the *Custom-house* Officers as Fullers Earth; but upon Tryal of it, they were convinced of their Error, and cleared the same.

William Knight, *Thomas Harper*, *Henry de Wilde*, *John Robins*, *Moses Johnson*, are all Potters in *London*, and swore that they had all seen the said *Warner's* Clay, which was seized, that it was really Potter's Clay, and of the same sort which they had constantly bought of him, some for above 25 Years, others ever since they were Traders, that it is of a quite different nature from Fullers Earth; for the said *Warner's* Clay tho' never so often dissolved in Water, may be brought into a Body again, and will work, like Wax, into any shape, whereas Fullers Earth being once dissolved is never to be got into any Body, but when it is dry crumbles like Sand, and all the art of Man can never make a Pot of it.

Hen. de Wilde, one of the said Potters farther deposed, That about five Years since he shipt some of the said *Warner's* Clay for *Pensilvania*, where his Son had set up a Pot-House, that the Custom-House Officers did then likewise seize it as Fullers Earth, but upon Trial of it found they were mistaken, and cleared the same.

Benjamin Furly, Merchant in *Rotterdam*, to whom the said *Warner* consigned his Clay, *John Sonman*, Servant to the said *Furly*, were, by virtue of a Commission from the Court of *Exchequer*, examined upon Oath, (by Commissioners appointed for that purpose) to several Interrogatories, and their Depositions being read in Court, did plainly prove that all the said *Warner's* Clay which was sent for *Holland* was really sold to Potters for making of Earthen-Ware, That they never heard, nor do believe that any part of it was ever used for the Fulling Trade, or is any way proper for it; that they sold the said *Warner's* Clay from 25 to 30 Guilders a Last, when they could buy Fullers-Earth at 7 Guilders a Last.

Adrian Van Arde, sworn Measurer of all the Earth and Clay imported to *Rotterdam*, was examined by vertue of the said Commission, and Deposed, That for many Years which he had been at that Office, he never knew or heard of any *English* Fullers-Earth imported into *Holland*, that they were so plentifully supplied with that sort of Earth from *Flanders;* that it is commonly bought and sold at Seven Guilders a Last, and had an Hundred Last by him to sell at the same Rate.

Ten or Twelve Potters in *Holland* were likewise examined by virtue of the said Commission, and deposed severally, That they had bought considerable quantities of the said *Warner's* clay of Mr. *Benj. Furly*, and paid for the same from 25 to 30 Guilders a Last; that they used the same in making Earthen-Ware, but do not believe it any way useful for the Fulling Trade, nor never heard that any of it was ever sold for that use.

Colonel *Holt*, a Member of Parliament, swore, That he (being very lately in *Holland*) made the strictest inquiries into the Truth of this Business, that he could, First amongst the Potters, who all declared to the same Effect, as in their Depositions before mentioned, that he likewise took some of the said *Warner's* Clay, and got a Fuller to try it, whether it were any way useful for their Trade, who answered it was not? nor could he use it if he might have it for Nothing; after which the Colonel ask'd him, From whence they were supplied with Fullers-Earth, and at what Rates? The Fullers answered, generally from *Flanders* at 6½, and 7 Guilders *per* Last; and sometimes from *Rosendale*, in the *States* Dominions, at 10 Guilders *per* Last; that being much dryer, and wasted less by lying; all which the Colonel (being unwilling to believe upon the Fuller's bare word) caused to be drawn up in the Form of an Affidavit, and the Fuller before a Magistrate, swore to the Truth of it, which Affidavit the Colonel hath to produce.

Mr. *Edward Paget*, a Divine, swore, That he being in *Holland* at the same time, made the like Enquiry amongst the Fullers at *Layden*, the chief cloathing Town in *Holland*, who all gave him the same Information, that the Fuller at *Rotterdam* had done the Colonel above; and for his better satisfaction, Three of the Chiefest went with him before a Magistrate, and swore to the Truth of what they Affirmed; after which he went to *Delfe* amongst the Potters, who all affirmed the same thing, that the Ten or Twelve had sworn in their aforementioned Depositions, the Truth of which they attested by a Certificate, under the Hands of above Twenty, which Affidavits, and Certificate, the said *Paget* hath to produce.

Rich. Cutler, Matthew Hanson, Ship-brokers, swore, They had hired many Ships for the said *Warner*, to load Clay for *Rotterdam;* and the general Price of the Fraight, and Primage paid for the same, was 15 Guilders, 8 Stivers *per* Last; and sometimes 17 Guilders, 12 Stivers *per* Last.

Will. Read, Tho. Wood, John Saliby, Mariners, swore, They had the same Prices above mentioned, for several Fraights which they carried, and saw delivered to the Potters in *Holland*.

Hump, Bellomy, Richard Hopkins, Timothy Fowler, —— Shepherd, Worcester, are all Buyers, and Sellers of Fullers-Earth, and swore they could well judge of the same, having dealt therein from Ten to above Twenty-five Years, that they all took Samples of the said *Warner's* Clay, out of the King's Celler, and tryed all the Experiments to judge of it, that they were capable of; and possitively affirmed that it was no Fullers-Earth; neither could they find anything of the Nature of Fullers-Earth in it, that for their Use they would not give a Shilling for 100 Last, for they should never be able to sell it.

Alderman *Bearcraft, Tho. Cooksey, John Wynn, Rowl. Hancock, Gloucestershire; Rich. Osborne, Tho. Woorrel, John Chilton, Sam. Beadle, Essex; Simon Meazy, John Lawson, John Backer, John Peartree, Suffolk; John Clarke*, Senior, *John Clarke*, Junior, *Will. Baines, Tho. Baines, Dan. Baines, John Smith, John Carter, Dan. Wenden, Sam. Wrinch*, London; *Dan. Barrs, John St. Berry*, are all Clothiers, Fullers, and Cloth-Workers; being the most eminent in their several Places; as well for Honesty, as great Traders, and good Estates; they all swore they had made the most impartial Experiments they could of the said *Warner's* Clay, now in dispute, being the same taken out of the King's Celler, that they tried it upon several sorts of Goods, as several sorts of *Cloth, Bays, Cloth Serges*, and *Perpetuanœs*, and every one possitively affirmed that it was no Fullers-Earth, but on the contrary was an absolute Enemy to the Woollen Manufacture; for instead of scouring, it fix'd the Grease in the Grownd of all the Goods, that were done with it, and instead of makeing them White, it absolutely stained them Yellow, all which was apparent to the most common Eye, in all the above said several sorts of Goods, produced in Court: They likewise declared upon Oath, that they were all Strangers to the said *Warner;* and that it was as prejudicial to their interest, to have Fullers-Earth Transported, as any men's, and therefore could have no Inducement to favour the said *Warner*, beyond the Merits of his cause, to the Violation of their Consciences.

This is so just a Recital of the Evidence given on behalf of the said Warner, that he challenges the greatest of his Enemies to detect him of the least Falsehood therein; and if his Adversaries had been as fair in representing theirs, there would have been no need of this; for whereas in their printed Papers they make their Witnesses to affirm the said Warner's *clay was tried in all Experiments, without any mixture, there was not above One or Two, but upon cross Examination at the Tryal, owned they used either Segg and Hogs dung, or Soap and Gauls with it, which would have scowered any Cloath better without the said Clay than with it.*

It may not be amiss likewise to observe that for a whole Year in which the Custom-House *Officers have been so very diligent in spreading the fame of the said* Warner's *Clay to be the best* Fullers-Earth *in England, he hath not been able to sell the least quantity of it as such, tho' he has proffered it to all Men for a very little more than one Third of what Fullers-Earth is generally sold for.*

ADDENDA.

PLASTER CAST of fragment of a **MOULD** for a Roman bowl; impressed on the inside with festoon and tassel border, and with figure-subjects similar to the decoration on Samian ware. The original found in 1874, during excavations outside the city of York, and preserved in the Museum of the Yorkshire Philosophical Society.

Presented by the Council of the Yorkshire Philosophical Society.

It has been generally supposed that the ware manufactured in this county, during the Roman occupation, was confined to the coarser varieties known as Romano-British pottery; and that the so-called Samian ware, which exhibits a finer paste and more elegant forms, was imported from the Continent. The discovery of this mould lends support to the view that such ware was manufactured to some extent at the Roman stations in this country.

TWENTY small oval **INTAGLIOS** and **SEALS**, bearing classical subjects and cyphers; mostly in black basaltes or Egyptian ware, some polished, and one in a blue paste; several are stamped "PALMER," others are marked "H. P.," while others again are unmarked.

Presented by T. B. Illidge, Esq.

H. Palmer, of Hanley, was one of Wedgwood's most successful imitators. Wedgwood's intaglios in basaltes, for mounting as seals and signet rings, were extensively copied by other Staffordshire manufacturers, and some admirable imitations were executed by the French modeller, Voyez.

SQUARE DISH in Wedgwood ware, decorated with large flowers printed in cobalt-blue under the glaze, and heightened with gilding; impressed mark "WEDGWOOD" with two blue stars under the glaze, and the gilder's mark "B" in gold.

TWO-HANDLED CUP and **COVER** in white ware, glazed only on the inside, the outside decorated with flowers in two panels on a dull blue ground; the borders, handles, and knob, are oil-gilt, but the gilding is much abraded and has been replaced in places by gilt paper; stamped "WEDGWOOD."

Presented by Dr. Hugh Diamond.

It is known that Wedgwood was in the habit of issuing pieces in the white, for decoration by amateurs. This appears to have been such a piece, as the crude decoration betrays an unskilled hand. Compare the oil-gilding on the Wedgwood specimen, No. V. 7, p. 256.

POT-POURRI VASE and **COVER** in cream-coloured ware, ornamented with marbled surface and chocolate coloured borders; impressed mark "WEDGWOOD & CO."

This piece may be safely referred to the Ferrybridge pottery in Yorkshire (*see* p. 242), and is interesting for comparison with specimens of Leeds ware, which present a similar style of marbled surface. *See* Nos. R. 41, *et. seq.*, p. 240.

Large **TWO-HANDLED MUG** in yellow glazed ware, ornamented in relief with flowers coloured pale blue, and with four profile portraits left in white; around the rim the following inscription, "JAMES·LOV· BOW·STREET·LONDON."

The portraits much resemble those of Wedgwood's medallions. It has been suggested that they are intended to represent Fox, Pitt, Wedgwood, and Wesley.

FIGURE GROUP in old Staffordshire ware, representing an open-air marriage, and including bride and bridegroom in costume of the period, with parson and clerk under a tree, which bears an inscribed shield and motto, "The New Marriage Act."

TEA-POT, in earthenware, coated with platinum-lustre so as to resemble silver plate; stamped with an anchor.

As lustred ware is generally unmarked, the interest of this specimen lies in the clue which it gives to the place of manufacture. The anchor may refer to the Davenport factory at Longport, Staffordshire. Compare Nos. G. 440, *et seq.*, p. 157.

Plate in Davenport porcelain; centre plain, border ornamented with three groups of flowers in blue and white panels surrounded by flowers in low relief and gilt; thumb-printed mark, "DAVENPORT," in semicircular ribband over an anchor.

Cup and **Saucer** in Mason's china, ornamented with willow pattern printed in pale blue under the glaze; the edge gilt; mark, printed in blue, "MILES MASON," with a square oriental chequer.

For other specimens of Mason's ware, *see* No. G. 463, *et seq.*, p. 159.

Small Barrel in Bristol pottery ornamented with a band of flowers between blue and brown hoops; one end of barrel painted with flowers, the other bearing the following inscription scratched in the paste and coloured brown: "*Marthar* (*sic*) *Wilkinson, Bristol Pottery*, 1818."

Earthenware Punch Bowl, printed in blue with large flowers and view of Bristol in the centre; marked, in blue under the glaze, "BRISTOL."

Earthenware Mug, with yellowish glaze, decorated in rather high relief with ivy pattern and frieze of figures; stamped "PROUDMAN."

Earthenware Plate, ornamented with blue lines under glaze, and with running border and scattered flowers in centre, painted over glaze in green, brown, and yellow; impressed mark "RAINFORTH & CO."

Presented by J. Horsfall, Esq.

Small Tray, with shaped edge; printed with oriental vases of flowers in deep blue, and touched with gilding; on base a confused blue mark, probably representing an Arabic numeral, perhaps the figure 4 converted by dashes into a pseudo-oriental mark.

Probably Salopian. Compare marks on Nos. O. 16 to 24, p. 228.

Pint Mug, in porcelain, ornamented with oriental scenes printed in blue under glaze, and marked with incised cross.

Cylindrical Vase, in ivory porcelain, of modern Worcester manufacture; celadon-green ground, ornamented in white with rilievo band of amorini, and masks and medallions, between two beaded borders; cornucopiæ around base; mounted on three white claws.

Presented by the Royal Porcelain Works, Worcester.

Small four-sided **Vase**, in ivory porcelain, of modern Worcester manufacture; celadon-green ground, ornamented in white with flowers and insects in low relief; around the rim a perforated border; the inside glazed pale blue.

The perforated work, which has become a striking feature in the decoration of some of the modern Worcester porcelain, is not stamped but executed entirely by hand.

Plate, in modern Worcester porcelain, decorated, in Japanese style, with mushrooms, dragon-flies, &c., painted in colours and outlined and shaded with gold; marked under and over glaze with four W's in a circle around letter C, which encloses figures 51; circle surmounted by a crown, and having abbreviated date, 75, beneath.

Small Vase, in plain terra-cotta; with sample of the red clay used in the manufacture.

Presented by the Torquay Terra-Cotta Company, Limited.

Puzzle-Jug, in white glazed earthenware; circular body, flattened laterally and ornamented on one side with coloured figure of the Sun in low relief, and on the other side with a running legend, printed in black on blue ground, as follows:

God save the King I pray God bless
the King I say 1775.
God save the King

broad edge of the circular body ornamented with oriental subjects, outlined in brown transfer-printing and coloured by hand; the foot marbled; the mouth with expanded lip tinted pink inside, and handle formed of a grotesque figure connected by a tube with a hollow ring running round the neck, and terminating in three projecting green and blue spouts.

Presented by Henry Willett, Esq., F.G.S., 1875.

Plate of Oriental Porcelain, with blue rim and gold edging; in the centre the arms of Wilton of Alderford, county of Norfolk, and the motto, Generoso Germine Germo.

Plate of exactly similar pattern, but probably of Lowestoft manufacture. Blue rim transfer-printed.

Both presented by Dr. Hugh Diamond, 1876.

Ticknall or Tickenhall Pottery, Derbyshire.

Potworks appear to have been established here as early as the 16th century. Layers of broken earthenware of various kinds, consisting of plates, basins, three and four handled tygs, pilgrims' bottles, together with very rudely formed heads, with the ruff of Queen Elizabeth's period, have from time to time been dug up in places extending in length over two miles.

Farey, in his General View of the Agriculture and Minerals of Derbyshire, Vol, I., p. 448 (1811), remarks, "Potters' clay, whitish, yellow, and red of " various hues, are found in the Coal Measures of Derbyshire and near it, " and are applied to the making of Pottery, Earthen and Stone wares, of " various kinds; the places where I noticed such Clay-Pits are,"—Here follows the list of twenty-four places, including Ticknall. He further states, " The Potteries or Manufactures of Earthen or Stone ware, where these Clays " are used, are situate at,"—Here follows a list of places including "Ticknal " for two red wares."

Four-handled Tyg, in coarse red ware, with lead glaze (Broken).

Jug in red ware, 7½ inches high, with a highly lustrous black-coloured lead glaze* (Broken).

Small Two-handled Bottle, partially glazed and damaged in the manufacture. Probably what is technically termed a waster.

Presented by Miss Lovell, Calke Abbey, Derby.

Bishop's Waltham Ware.

A pottery was established at Bishop's Waltham, South Hants, in September 1862, when the Bishop's Waltham Clay Company (Limited) was formed, having been promoted by the late Sir Arthur Helps, owner at the time of the Vernon Hill estate, on which the works were situated. The manufacture at first consisted of ordinary red ware, red and black tiles, bricks, &c., and the black bricks used in the construction of Blackfriars Bridge. In February 1866 a successful experiment was made to produce works of art in the shape of jugs, water-coolers, &c., but this was discontinued, the company having gone into liquidation in the following year. The business was subsequently transferred to Messrs. Blanchard and Co., Blackfriars Road, London.

Tobacco Jar, in red terra-cotta, with classical figures on a black ground. Marked in black, "Bishops Waltham." *Presented by H. Willett, Esq.*, 1876.

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* At page 378, Vol. I., Farey says, "Formerly it seems that considerable quantities " of the Derbyshire lead ore, selected from the largest and most pure or Bing ore, was " sold in that state to the Staffordshire and other potters to grind, in preparing the " glazes for their common ware, and hence such was called Potter's Ore."

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